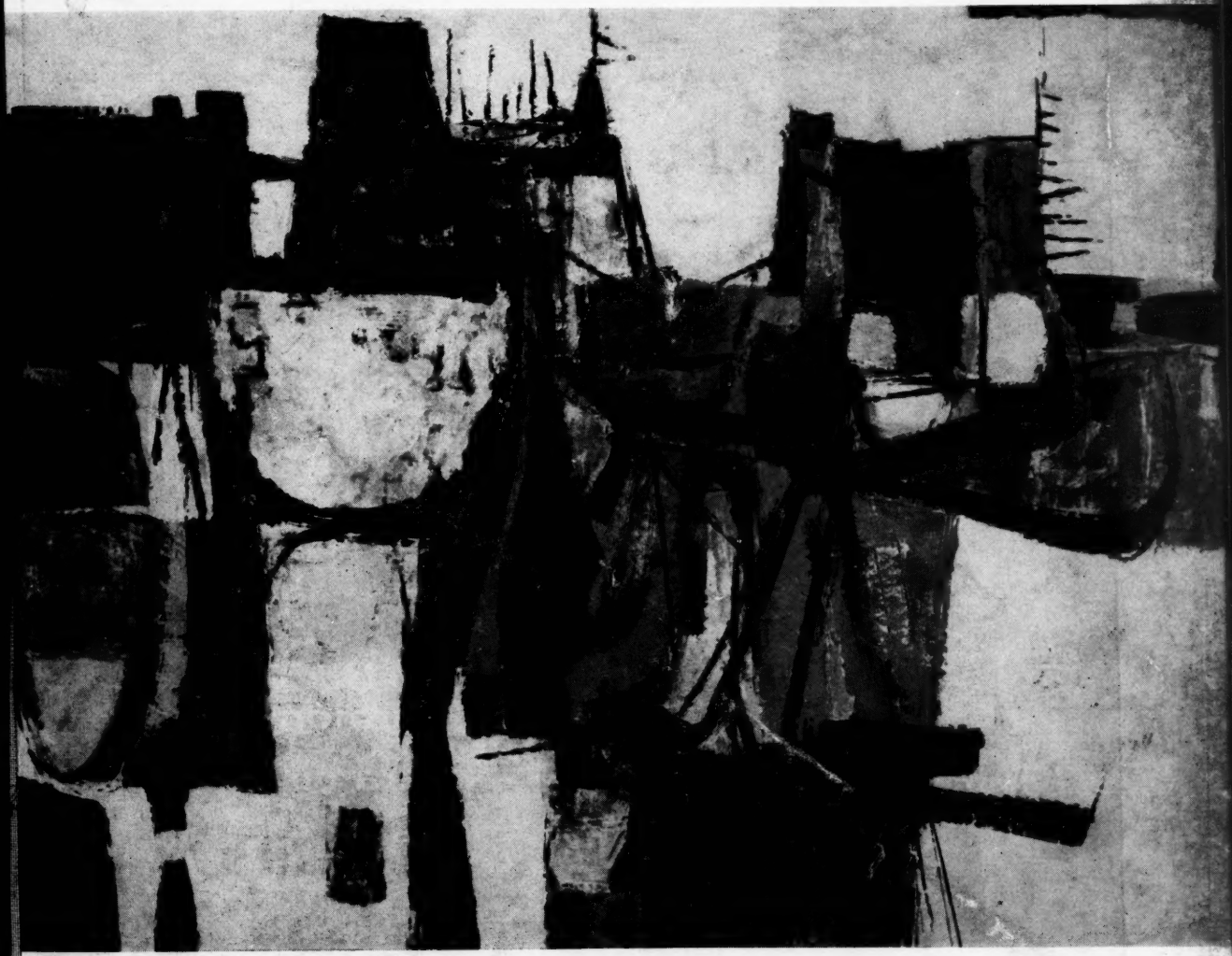
agazine of inland area building and planning | PUBLISHED BY THE CHICAGO CHAPTER AMERICAN INSTITUTE OF ARCHITECTS

ART ROOM
CHICAGO PUBLIC LIBRARY

inland architect

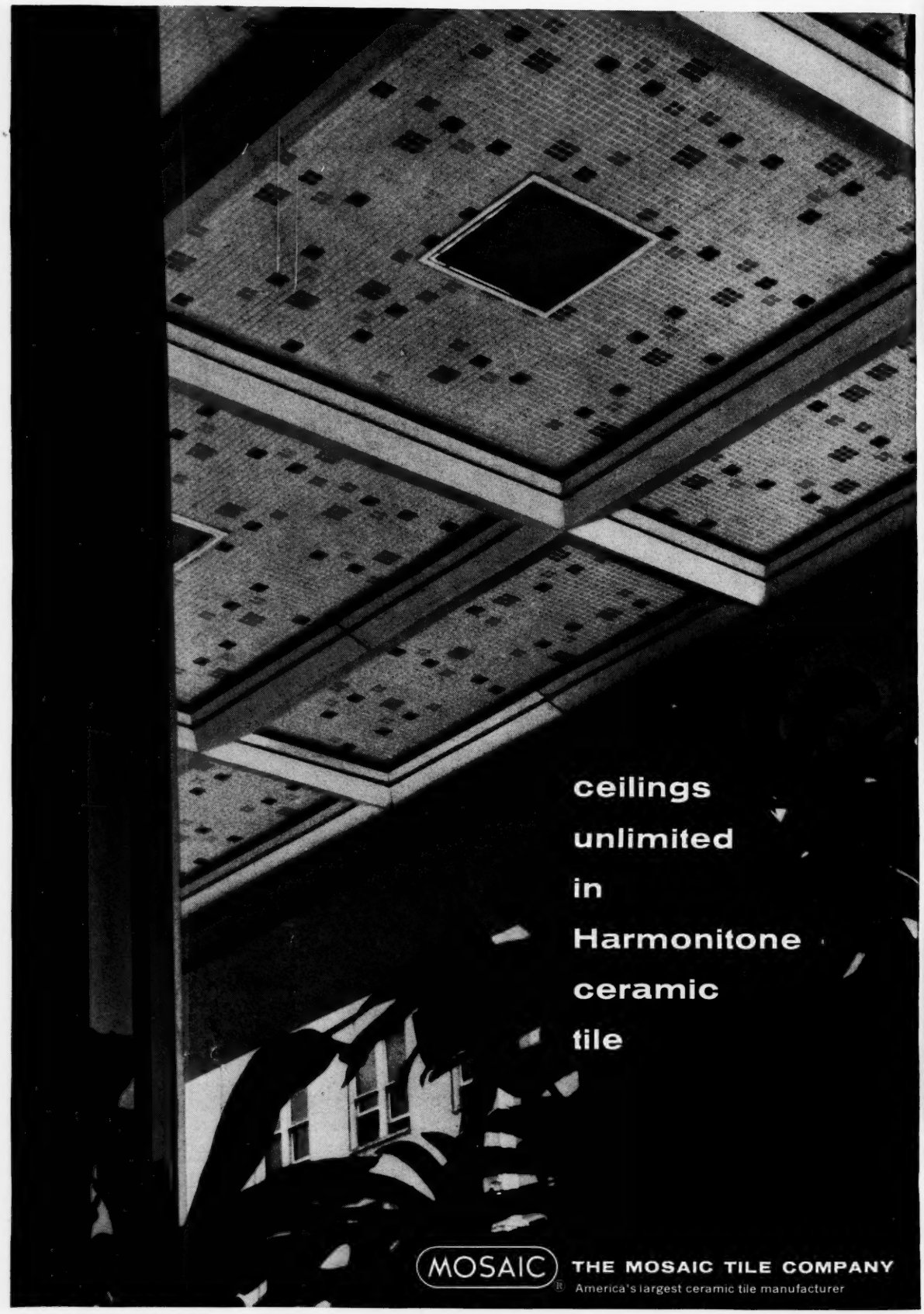
GURRENE
NUMBER



V.3 #1

mber 1959 | 35 cents

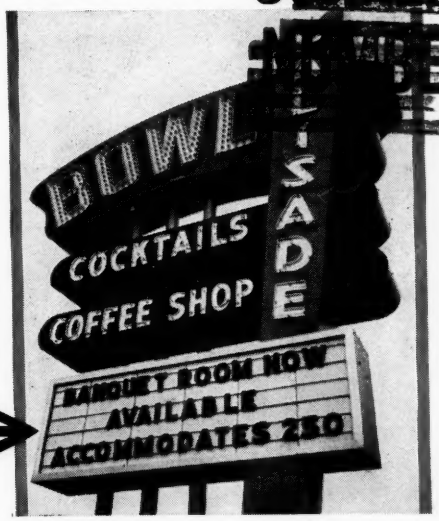
The Chicago Public Library
Art Room
78 East Washington Street
Chicago 2, Illinois


ceilings
unlimited
in
Harmonitone
ceramic
tile
MOSAIC
THE MOSAIC TILE COMPANY
America's largest ceramic tile manufacturer

ART ROOM
CHICAGO PUBLIC LIBRARY

Without Electric Heat the capacity would have been only 125

Heat pumps not only gave cleaner, more efficient heating and air-conditioning, they added extra income space to the Palisade Bowl!



THE PROBLEM:

This big Chicago bowling emporium had to heat, cool and ventilate 347,985 cu. ft. of first floor space, *plus* a basement banquet hall and office wing. Heat loss load was estimated at 1,500,000 Btu (two-thirds of it to meet code requirements for ventilating).

Thousands of people were to enter and leave this building. The constantly changing atmosphere would have made conventional central heating systems inefficient and uneconomical, with the heating, cooling and ventilating elements often working against one another. This would result in excessive heat loss to the outside and constant operation.

How to heat economically within the code and have an efficient system flexible enough to handle this unstable atmospheric condition?

THE SOLUTION:

Eight 10-ton heat pumps, ingeniously installed, did the job.

The primary advantage of the heat pumps was this: they could work together or independently without working against one another. And they were easy to control. Groups of them could be controlled by a simple gang switch, or they could be controlled separately.

By installing them in such a way that each controlled a "zone" of the building, it was possible to (1) exercise instant control over the atmosphere of the entire building, and (2) heat, cool or ventilate different parts of the building separately and at the same time.

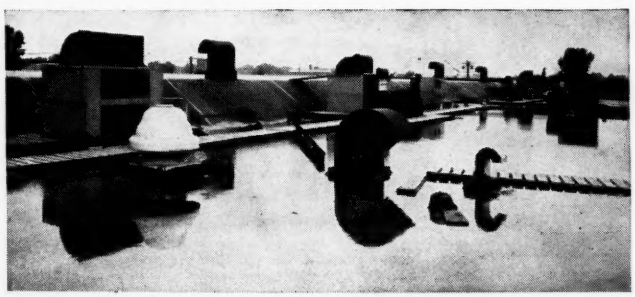
The only space taken by the heat pumps was the gap between the 9-foot ceilings and the roof. Their compressors and condensers were mounted on the roof. Not one square foot of valuable commercial space was lost!

By also using the ceiling-to-roof space as a plenum for the exhaust system an incredibly high degree of efficiency and economy was attained. In exhausting this chamber the heat pumps extract pure heat from the stale air before it is blown outside. This heat is then transferred to the incoming fresh air. Result: more heat from fewer heat pumps.

THE EXTRA BENEFITS:

A welcome plus was the addition of commercial space. None of the basement floor had to be sacrificed to a heating system. Capacity on this level was thus increased from 125 to 250 people.

There were plenty of other advantages. (1) Cleaner heat, with no smears or odors. (2) Safe heat, with no flame in the entire building. (3) Saving the additional water costs for air conditioning by the use of air-cooled condensers. (4) Constant and unlimited "fuel" supply. (5) Minimum installation investment. (6) System is custom-sized and adaptable —can be easily expanded if building is enlarged. (7) Units operate at peak efficiency at all times. (8) Greatly reduced maintenance costs. (9) No boiler scale formation.



Roof-mounted compressors and condensers give some idea how heat pumps exercise "zone control" of building's heating, cooling, ventilating. There are no signs of a heating or air-conditioning system inside.

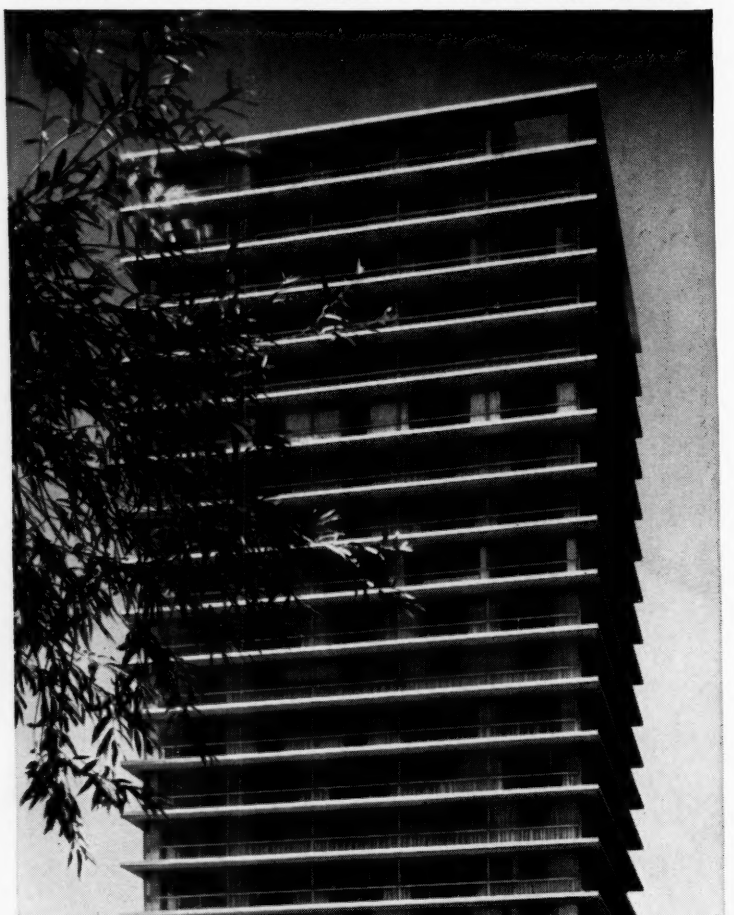
For additional information call your Commonwealth Edison or Public Service Company Representative

Commonwealth Edison
AND
Public Service Company

© C. E. Co.

Curtained with an acre of glass...this Chicago building is 100% reinforced concrete!

WHEN AMERICA BUILDS FOR DURABILITY . . . IT BUILDS WITH CONCRETE

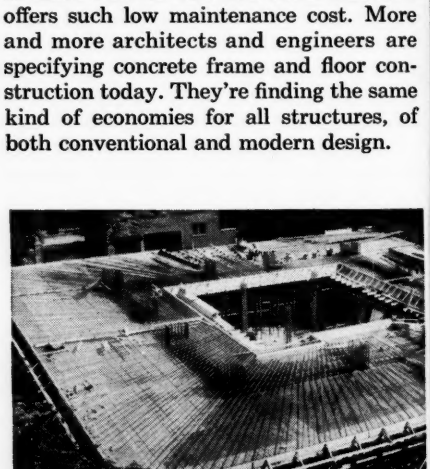


It's one of Chicago's finest luxury apartment buildings, 21 stories overlooking Lake Michigan at 320 Oakdale. Beneath its attractive exterior, 12,000 cu. yds. of concrete form a frame and floor skeleton of outstanding strength.

Architect Milton M. Schwartz of Chicago and structural engineers from Miller Engineering Co. chose reinforced concrete for its rigidity and durability—and passed along big bonuses in economy to their client, too.

Concrete saved an estimated $200,000 through reduced materials cost, easier construction scheduling. It made a simple job of the cantilevered overhangs. And because floors are flat slabs, it saved a full story in total height.

Concrete needs no special fireproofing. It can't rust or rot. No other material offers such low maintenance cost. More and more architects and engineers are specifying concrete frame and floor construction today. They're finding the same kind of economies for all structures, of both conventional and modern design.



Reinforcement being placed for large, cantilevered 2nd-floor slab, a construction so easily achieved in reinforced concrete.

FOR STRUCTURES... MODERN **concrete**

PORTLAND CEMENT ASSOCIATION
111 West Washington Street, Chicago 2, Illinois
A national organization to improve and extend the uses of concrete

COVER sets its sights on "High Terrain" painted by Edward Betts, exhibiting at Chicago AIA offices.

Inland Architect carries news and articles on inland-area building and planning, with the participating co-operation of the following Chapters and affiliate groups of the American Institute of Architects.

Chicago Chapter
Central Illinois Chapter
Southern Illinois Chapter
Northern Illinois Chapter
Architects' Association of Illinois
Student Chapters, AIA
University of Illinois Navy Pier
Illinois Institute of Technology
University of Illinois Urbana

Editor
D. C. WHITEHEAD, A.I.A.

Advisory Editor
RAYMOND C. OVRESAT, A.I.A.

Managing Editor
ELLIS MURPHY

Advertising Manager
HOWARD M. DODGE
333 N. Michigan Ave.
Chicago 1, Ill. ST 2-4220

Editorial Staff
William R. Baker, A.I.A.
Edward A. Campbell, A.I.A.
Thomas W. Claridge, A.I.A.
Louis E. Fideler, A.I.A.
Hans A. Friedman, A.I.A.
Watson A. Healy, A.I.A.
Adrian Lozano, A.I.A.
Robert W. McCormick, A.I.A.
Joseph Voska, A.I.A.

Board of Directors
Chicago Chapter, A.I.A.

OFFICERS

President
William J. Bachman, A.I.A.

First Vice President
R. Rea Esgar, A.I.A.

Second Vice President
Spencer B. Cone, A.I.A.

Secretary
John D. Randall, A.I.A.

Treasurer
Charles F. Murphy, Jr., A.I.A.

DIRECTORS

John R. Fugard, Jr., A.I.A.
Kenneth A. McGrew, A.I.A.
Marvin G. Probst, A.I.A.
Richard M. Bennett, F.A.I.A.
James A. Wares, A.I.A.
Bertram A. Weber, F.A.I.A.
Jack D. Train, A.I.A.

Administrative Secretary
Mrs. Ceil Garneau

inland architect

PUBLISHED BY THE CHICAGO CHAPTER AMERICAN INSTITUTE OF ARCHITECTS

Volume 3 *Number 1* *September, 1959*

ART ROOM
CHICAGO PUBLIC LIBRARY

Contents

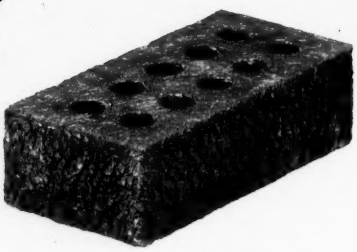
Meetings	9	
Art at the AIA	9	*Edward Betts*
Regional AIA Meeting on Color	10	
Color Coordination	10	*Kenneth Gale*
Matching and Measuring Color	12	*Edward Mackasek*
Acoustics in Color	14	*Jean Culbertson*
Principles of Color Harmony	15	*Howard Struck*
Chicago Chapter Comment	18	*R. Rea Esgar, AIA*
Visiting French Architects	20	
Addendum	21	
Membership	26	

INLAND ARCHITECT • CHICAGO CHAPTER • AMERICAN INSTITUTE OF ARCHITECTS

221 North LaSalle Street, Chicago 1, Illinois *DEarborn 2-7197*

Published monthly by the Chicago Chapter of the American Institute of Architects at 221 N. LaSalle Street, Chicago 1, Illinois. Second-class mail privileges authorized at Chicago, Illinois. Subscriptions: $2.00 per year for A.I.A. members and students not belonging or affiliated with Chicago Chapter A.I.A., $3.00 per year for non-members. Single copies, 35¢.

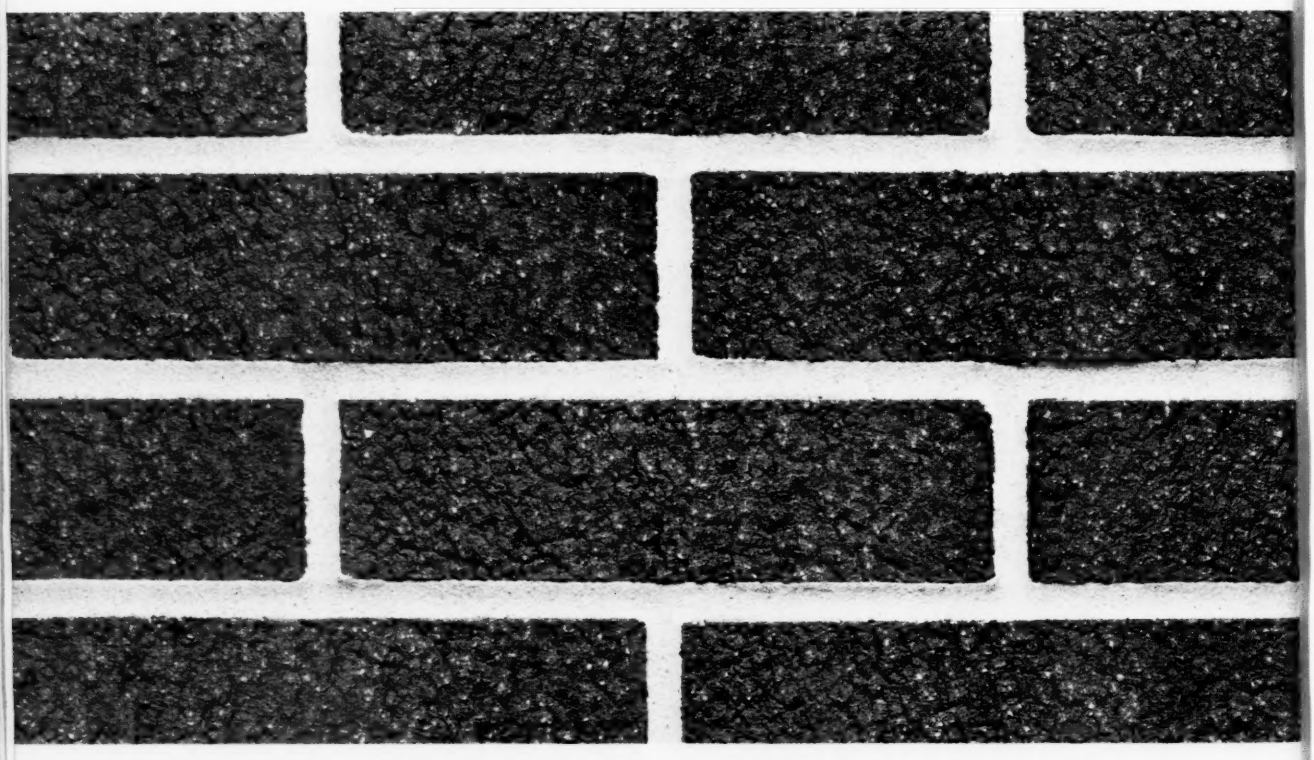
Tebco Face Brick



for beauty that weathers the years!

Tebco buildings—municipal, commercial, industrial, residential—set new standards of beauty wherever they go up. Design possibilities are virtually unlimited because you can choose from 31 distinctive color combinations . . . four different textures—smooth, vertical scored, matt, and velour . . . three sizes—Standard, Roman, and Norman. Evans' million-brick-a-week production assures prompt delivery of the colors, sizes, and styles you want. Specify Tebco for lasting beauty that never loses its appeal. Tebco Face Brick meets all ASTM and FS standards.

Illustrated: **MAJESTIC GRAY (52 A),** Standard Size, an appealing and distinctive medium gray matt texture



THE EVANS BRICK COMPANY

General Offices: Uhrichsville, Ohio • Telephone: WAlnut 2-4210

Sales Offices

Cleveland, Ohio
Columbus, Ohio
Pittsburgh, Pa.
Detroit, Mich.
Bay City, Mich.
Fairmont, W.Va.
Toledo, Ohio
Philadelphia, Pa.

TEBCO

One of the nation's largest producers of Clay Pipe, Clay Flue Lining, Wall Coping, Plastic Pipe and related construction materials, with over 50 years of faster, friendlier service.

New... Non-Combustible

LAMIDALL® AC

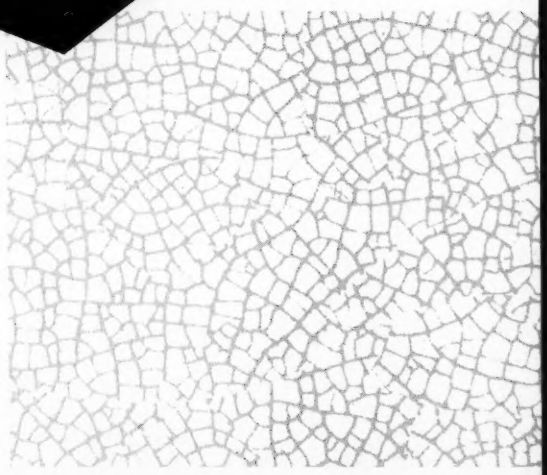
DECORATIVE PLASTIC LAMINATE — ASBESTOS CEMENT

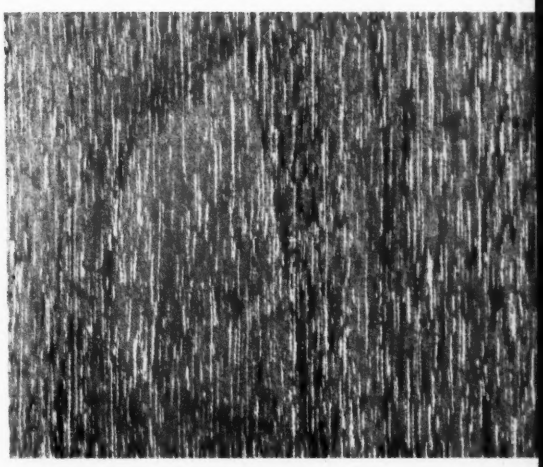
PANELS

FOR FIRE SAFE WALLS

Fireproof Base with Durable,
ecorative Plastic Laminate Surface
for Walls, Wainscot, Ceilings in...

Institutional, Commercial
and Industrial Buildings





FEATURES...

- Decorative Fire Resistant Surface
- Fire-proof Asbestos Cement Base
- Long-lasting Beauty with Little Maintenance
- Modern Patterns, Colors, Authentic Woodgrains, Marbles
- Standard 4′ x 8′ and 4′ x 10′ Panels, ⅛″ thick
- Matching Mouldings, Aluminum with Plastic Laminate Face
- Economical, Simple Installation

• Lamidall A C Panels, with a non-combustible base and a special fire resistant surface, which is self extinguishing, were developed to conform with Metropolitan Area building codes.

The decorative, hard, durable surface of Lamidall A C Panels resists marring, scuffing, staining and keeps its original beauty with a simple wipe of a damp cloth. It is the ideal answer for walls, wainscoting and ceilings that are subject to wear and abuse. The glass-smooth surface assures highest sanitary standards and lowest maintenance cost.

In addition to these three illustrations* of Lamidall A C Panels, there are many other colorful, modern abstract and decorative patterns, and authentic woodgrains and marbles available to suit the widest use or decor treatment.

The Lamidall A C illustrations shown here are printing simulations and not true reproductions of the original pattern beauty.

Non-Combustible

● Lamidall A C Panels, 4′ x 8′ or 4′ x 10′, are easily installed with readily available mastics, on any reasonably smooth, clean wall surface. Although the asbestos-cement base has high flexural strength permitting easy handling, the tough plastic resin surface of Lamidall provides a "skin" which reinforces the panel.

Lamidall A C Panels will prove to be the ideal, economical answer to all decorative wall surface problems where the combined advantages of maximum fire-safety and lasting, maintenance-free beauty are desired.

Lamidall is a Product of

WOODALL INDUSTRIES INC.

3500 Oakton Street, Skokie, Illinois

LAMIDALL® DECORATIVE PLASTIC LAMINATE AC ASBESTOS CEMENT PANELS FOR FIRE SAFE WALLS

For Fire-Safe, Decorative, Maintenance-free Walls, Ceilings, Wainscot In . . .

Schools:
- Auditoriums
- Classrooms
- Corridors
- Gymnasiums
- Lunch rooms
- Laboratories
- Offices
- Entrance Areas
- Shops
- Lavatories

Hospitals, Nurses Homes:
- Corridors
- Rooms
- Laboratories
- Surgical Areas
- Kitchens
- Entrance Areas
- Laundries
- Dining Rooms
- Lavatories
- Elevators

Hotels-Motels:
- Lobbies
- Corridors
- Rooms
- Kitchens
- Dining Rooms
- Lounges
- Bars
- Bathrooms
- Laundries
- Meeting Rooms
- Elevators

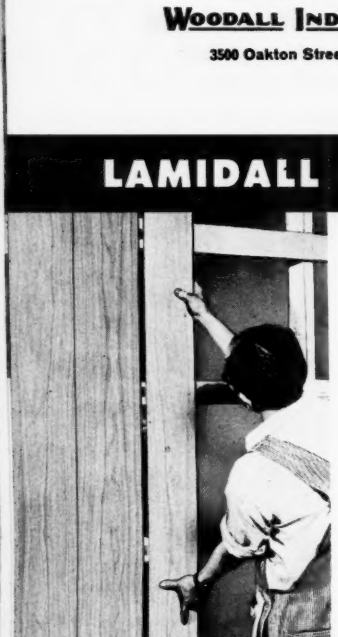
Office Buildings:
- Lobbies
- Corridors
- Offices
- Shops
- Lounges
- Lavatories
- Elevators
- Reception Rooms

Restaurants, Bars:
- Entrance Ways
- Dining Rooms
- Cocktail Lounges
- Bars-Counters
- Lavatories
- Kitchens
- Banquet Rooms

Stores-Shops:
- Walls-Wainscot
- Display Areas
- Counter Fronts
- Service Areas
- Offices
- Stock Rooms

Industrial Plants:
- Offices
- Corridors
- Lavatories
- Lunch Rooms
- Entrance Areas
- Laboratories
- Work Areas

LAMIDALL PLANKING



Tongue & Groove— Random Widths

With the same beauty and durability of Lamidall A C Panel surface, Lamidall Planking is unique with its ¼" thick specially treated hard-board base, tongue and grooved for simple, fast installation. Special Lamidall clips are inserted in the tongue edge and nailed to furring strips or wall base.

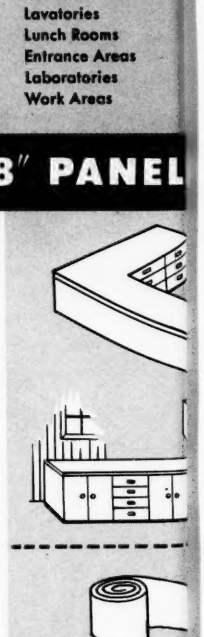
Lamidall Planking is available in many decorative patterns, colors and authentic woodgrains with matching mouldings for corner and edge trim.

LAMIDALL 1/8″ PANEL

For Fixtures, Cabinets, Built-ins

Beautiful Lamidall is also available in ⅛" thick 4′x 8′ and 4′x 12′ panels for use on side, front and top surface applications. The hard durable plastic surface bonded to a specially treated hardboard base has proved its advantages in hundreds of fixture, furniture, counter, door panel and other uses. Available in all popular Lamidall patterns, colors and authentic woodgrains.

Lamidall Flexible edging in exact matching patterns, colors and woodgrains with a tough plastic laminate surface, is ideal for counter and top edging . . . Produced in standard rolls 12" wide x 96" long.



Write for Architect Sample, Prices and Additional Information:

WOODALL INDUSTRIES, INC., 3500 Oakton Street, Skokie, Illinois

PRINTED IN U.S.A.

MEETINGS

Architectural Landmarks For October Meeting

The Chicago Chapter's regular meeting for the month of October has been scheduled for 6:30 p.m., October 13th, in the Walnut Room of the Bismarck Hotel. Cocktails will be served at 5:30. The meeting will be jointly sponsored by the Chapter, the Commission on Chicago Architectural Landmarks and the Chicago Association of Commerce and Industry.

A nationally known speaker, plus talks by Augustine Bowe, Chairman of the Commission on Chicago Architectural Landmarks, and Mayor Richard J. Daley will comprise the program. The entire program will highlight the work of the Commission and the preservation of historic buildings, noted for their architectural significance.

The Commission on Chicago Architectural Landmarks has, within the past few years, evaluated the historic and architectural significance of hundreds of buildings in the City. Of these, 34 have been selected as noteworthy and 14 worthy of being premiated. The buildings range in age from the time of the fire to those recently completed. At the meeting on the 13th, the Mayor will present plaques to the owners, or their representatives, of the 34 structures which are considered to be Architectural Landmarks.

Members of the Commission in addition to Mr. Bowe, are: S. A. Lichtmann, vice-chairman; Joseph Benson, Secretary; Ira Bach; Paul M. Angle; William E. Hartmann; Barnet Hodes; and Ruth Shoneman.

Mr. Lichtmann, who is a past president of the Chicago Chapter, has been working with the program committee to develop this special meeting. Also working on the meeting is Earl Reed, who is chairman of the AIA's National Committee for the Preservation of Historic Buildings. Mr. Reed has expressed the hope that out of this meeting will come a program of recordings in cooperation with the Historic Architectural Buildings Survey.

A large attendance is expected because of the joint sponsorship and the committee urges early reservations.

Third C.S.I. Seminar Starts September 28th

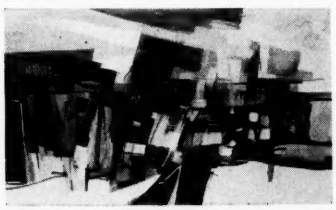
The Chicago Chapter of the Construction Specifications Institute has announced a Third Seminar on Preparation of Technical Specifications. Sessions will be held at the Portland Cement Association, 33 West Grand, and will run for eight consecutive Monday evenings from 7 to 9 p.m., starting on the 28th of this month. Registrations should be sent to A. L. Mathews, Chicago Chapter, C.S.I., 314 S. Federal Street, Chicago 4. Attendance is limited to 200, registration closes September 21.

Topics and speakers are as follows: Masonry—Structural and Exterior Facing, H. F. Wustman; Structural Steel, V. O. McClurg; R/C Above Grade, Norman Brunkow; Wood Construction, R. C. Dorman; Mechanical Trades, R. G. Burkhardt; Electrical Wiring, Frank McShane; and Roofing, Andrew Digre.

art at the aia

Monthly exhibits of the work of local artists are arranged by the Chicago Chapter of the Artists Equity in the Chicago AIA offices at 221 North LaSalle.

In October the art of Edward Betts, an Associate Professor of Art at the University of Illinois in Urbana will be on display in the offices of the Chicago Chapter, AIA. Prof. Betts is a graduate of Yale and has been



This is a photo of a painting by Edward Betts entitled "Hudson River Landscape."

granted a Master of Fine Arts by the University of Illinois. He has numerous prizes and awards from the National Academy of design and from other organizations.

Professor Betts has been teaching at the University since 1949 and has taught many young architects how to make the best use of watercolors. He also teaches art classes in composition and still-life. He spends his summers in Maine, at Ogunquit, and most of the subject matter in his paintings reflects his Maine environment.

Industry Responsibility

For responsible, efficient, attractive lathing and plastering to meet your specifications call on any of these well-known firms.

MEMBERS

J. C. Anderson, Inc.
Babka Co.
Jim Belsan Plastering Co.
J. J. Brown Co., Inc.
Bullivant Plastering Co.
Burson Brothers, Inc.
Carty Plastering Co.
Dewey & Whalen, Inc.
DiMaria Plastering
Wm. A. Duguid Co.
J. W. Farr & Co.
Goss & Guise
Herron Plastering Co.
George W. Humphrey Company, Inc.
Johnson Plastering Co.
Kjellberg Plastering Co.
M. Lamarche & Co.
John Lorentz
Frank Marotto
McGinty Plastering Co.
Frank A. McGurn, Inc.
McNulty Bros. Company
O'Connor Plastering Co.
Roscoe E. Olson
Plastercraft, Inc.
Reed Plastering Co.
Victor J. Schmidt
Smithson Plastering Co.
Stout Plastering Company
Tri County Plastering Company
Valenti Plastering Co
John Watt
Oscar H. Wilke Plastering Co.
E. H. Wolatz
Zander Reum Co.

ASSOCIATE MEMBERS

The Olson Lathing Company
Wilson Lathing Company

HONORARY MEMBERS

Otto Jacobsen
Wm. Balhatchet
L. J. Bullivant

EMPLOYING PLASTERERS ASSOCIATION OF CHICAGO

228 NORTH LA SALLE STREET
CHICAGO, ILLINOIS
CENTRAL 6-2739

Keynote:

COLOR

■ More and more, color is being built into buildings. New products, new processes are all keynoting color, built-in color. Plastics, new glazes, metal finishes, protective coatings, all are making possible a whole new world of color and color consciousness.

INLAND ARCHITECT in this issue joins in this theme that the North Central States AIA Regional Conference has chosen for its meeting in Milwaukee, Tuesday and Wednesday, Sept. 22-23, "Color in Architecture."

Speakers at this meeting to be held in Milwaukee's Pfister Hotel include: Isay Balinkin, University of Cincinnati professor of experimental physics, leading a seminar on "Color Fundamentals for Architects;" Howard Ketcham, author of "Color Planning for Business and Industry," discussing "Psychological Use of Color in Building;" Walter Granville, Inter-Society Color Council president talking on "Color and Design in Architecture;" Julian Garnsey, well known color consultant, addressing the closing night banquet on "Color as Selected;" Charles Haeuser, AIA Milwaukee, moderating a panel discussion of "We Have Color—Now What?;" and Dan Kalka, AID discussing "Color in Interior Design."

Forty-five manufacturers have arranged for exhibit space for between-meeting meandering and learning. Color of another kind will be served up in a Tuesday night dinner-dance at the Milwaukee Athletic Club.

Architects and manufacturers alike have a lot to learn about color. The "where has it been up for twenty years" has sometimes to be answered with unabashed confidence, or the surer gamble gleaned of experience. At any rate, color is with us, with us big. Forty floors of colored sandwich panels is nothing to be timid about, must go in at once, is there for all the world to see. This is our improbable opportunity, color. □

■ Color is sensation. At least it certainly causes sensation. It affects the senses, and it is largely an emotional thing. It is difficult to be coldly logical about color; either you like a color combination or you don't, and usually you don't know why. Also, your likes and dislikes can change. And what *you* like may not appeal to another person.

This is why it helps to refer to certain known facts about color. If we understand these facts, we will come much closer to achieving color coordination which is pleasing to most people.

In recent years, we have seen a real emancipation of color. The old dogmas are gone, largely because of new things which have been discovered about color. You may recall hearing someone say, long ago, that green and blue should never be used together. Many people believed this very strongly, just as they thought houses should be white, and automobiles should be black, and the tile in bathrooms should be black and white . . . and no nonsense about it.

But the world has become much more colorful, and the *right* green with the *right* blue certainly results in a beautiful combination.

Of course, as is natural when freedom comes, some people go too far. This color emancipation can be over-done, and when it happens, all you can say about the result is that it is in poor taste.

If there's a key fact in good color co-ordination, I think it lies in one word: "Balance." There is something basically appealing about balance; it denotes stability and safety. But this can be achieved with either formal or informal balance, and is another aspect of the use of color.

Light and Design

It is impossible to separate color from two other factors: Light and Design.

As you know, light can actually change the color you see.

Coordination

by KENNETH GALE, Director of Design, The Mosaic Tile Co.

Something that looks blue in natural light becomes purple under certain artificial lights. As for design, this dictates where color is used, in what quantity (so far as area is concerned) and in what shape. Now consider a bright blue dot, a quarter inch in diameter, on a white field. Then imagine the dot enlarged so that it becomes a two-inch square. The two-inch square will look "bluer" than the quarter-inch dot, simply because there is more blue area.

How do you achieve "balance?" Perhaps the easiest way to understand this is by referring to a pound of lead, and a pound of feathers. A rather dark, strong red might be compared to the lead, while a light green could be thought of as the feathers. Is it possible to achieve balance between these two, so that the effect will be pleasing?

Certainly—but you don't do it strictly by volume, any more than you would balance a cubic foot of lead with a cubic foot of feathers. This wouldn't work at all. So you use a relatively small amount of the strong red, and a larger amount of the pale green, and you can achieve visual balance, even though there certainly is no quantitative balance between the red and green *areas*, or between the *intensity* of the colors.

It may be helpful at this point to offer a few definitions of words having to do with color. There is no unanimity of opinion concerning these definitions. Lexicons of color terms have been set up by various experts, notably Ostwald, a German scientist, and Munsell, an American color expert. Here is the way I think of these terms:

First there is "*hue*." This is the basic color. For example, *red* is a hue.

Next there is "*tint*." This is achieved by adding something *lighter* to the hue. If you add white to red, you get pink, and this is a tint of red.

Then we have "*tone*." You achieve this by adding something *darker* to what you start out with. If you add black to red, you get maroon—or a tone of red.

But what is the word that covers all the variations? In common usage, it is "shade," though don't be surprised if you get an argument on this point. In any case, such a word is definitely needed to cover all the variations of a basic colors, and "shade" seems to serve as well as anything else.

There are three ways color can be changed.

First, alter the concentration of pigment.

Next, add one color to another—such as yellow to green.

And, third, add "gray"—that is, some value of black and white.

Color a Tool

Now all of this explanation simply leads up to one basic fact: Color is a tool. It can be used indoors and outdoors, in the home, in business buildings, in schools, churches – indeed, there is no limit to its use.

To get down to cases: to redecorate an interior area, what are the factors to consider, so far as color is concerned?

First, of course, is the *function* of the area. Should it be restful or stimulating? Is it important to have good visibility, for close, exacting work?

Next, is the *personal reaction* of people who live or work in the area, and also those who come into it as visitors.

Often it is necessary to balance the first factor against the second. For example, you can use such stimulating colors in an office that everybody has a fine time, but they find it difficult to concentrate upon their work. So, obviously, situations like this must be avoided.

The third factor is the *physical setup* of the room. It may have bad features you want to play down, or good features to be emphasized. You can do both with color.

In approaching this problem, keep in mind that there are two main types of color. First, there is the warm, advancing, or stimulating color. Examples are red, yellow, and orange. Then there is the cool, receding, relaxing color, such as blue or green. To pull a wall forward, visually, make it red. To push it away, use blue. In most cases, you're striving for a pleasing visual effect, based upon balance, and you're also hoping to achieve a psychological effect.

Leading manufacturers nowadays are well aware of the value of color, and the need for simplification in its use. They have devised color charts and color wheels, and have used swatches, and chips, and many different devices.

In the field of ceramic tile, until recently, the major categories of tile were treated separately. That is, there was little relationship between the colors of glazed wall tile, for example, and those used in the smaller ceramic mosaics.

Early in 1959 the Mosaic Tile Company introduced what is called the Harmonitone Palette. This establishes nine color families, which cut across the tile categories, so that it is possible to achieve pleasing combinations in infinite variety. All of these Harmonitone colors are planned as colors to live with. They go well with any kind of room furnishing.

There are different surface textures—an important element in tile. It figures in the overall visual effect along with color, design, and light.

Think of these few basic ideas concerning the use of color as tools which can be used to your advantage. The main word to remember is "balance," and of course right along with it goes "moderation." Add these together and the result usually is good taste. □

Matching and Measuring Color

■ Matching a selected color and finding a material that will be the selected color long after it is put in use is a basic problem in architectural work. When an architect has selected a color he submits a sample of it to the building material supplier for matching. This might be a piece of colored paper, metal, stone, tile, porcelain enamel, glass or even cloth. The surface finish might be dull, lustrous, glossy or textured. The nature of the material and the surface affect optical characteristics and the problem of matching two dissimilar materials having different surface finishes often becomes a very difficult one for the manufacturer as well as the buyer who must determine if a match has been achieved.

Color Matching

If the manufacturer has a range of standard colors within which selection must be made, he will submit the nearest standard shade to the one required and "that's it." If the material is porcelain enamel the architect has an unlimited range. While some porcelain enamelers, as well as the Architectural Division of the Porcelain Enamel Institute, put out color charts, they serve primarily as guides and show recommended shades, which are those most widely used and which help expedite selection and production. Porcelain enamel manufacturers will undertake to match any color. Their laboratories contain a file of many hundreds of color compositions from which they can usually match a sample request without too much difficulty. However, if a composition for the required shade is not listed in the file, it can be developed in the laboratory at a nominal extra charge. Once the composition has been established and recorded, the color can be reproduced when required, time and again, in exact match. Not infrequently, porcelain enamel manufacturers receive and fill orders from customers for parts to match panels erected 20 years or more previously.

After a color match has been agreed upon, sample plates, properly marked for identification, are filed by the architect and the manufacturer. Panel production is then started and it becomes the manufacturer's responsibility to see that all finished parts match the approved sample "within commercial tolerances." The differences in shade covered by this term are due to slight vagaries in the processing operations; however, they are in general so small that they are not noticeable to the ordinary observer.

Measurement Of Color
Visual Measurement

Color matching by the simple process of visual comparison works very well when tolerance requirements are not too exacting and if the eyes of the observers produce approximately the same psychological responses to the color stimulation. However, the ability of the eye to discriminate varies considerably with different individuals and under different viewing conditions. Lighting is important and when possible matching should be done under north sky light. The sensitivity of the average eye varies also with color and is keenest to the central region of the spectrum and least responsive to the outer limits of the visible portion of the spectrum, that is to red at one end to violet at the other. There are also psychological factors that may enter the picture. For example, an appliance manufacturer proved that color judgment was affected by the inspector's mental outlook; if disturbed by worry or domestic trobules, his efficiency went down.

As the results of color research are derived in a large measure from the observations of a so-called "normal observer," the color technologists found it necessary to standardize a normal observer's visual qualities. This was done in 1931 by the International Committee on Illumination. In some cases, contracts have been written calling for a standard observer to evaluate results.

Measurement of Color with Instruments

Color is the sensation produced when light, from a given object, meets the eye of the observer. We cannot, of course, measure the sensation; however, there are attributes of color that can be segregated, recorded and evaluated, which provide a basis for color measurement. These attributes are:

(a) Hue, referring to the colors in the spectrum as blue, red, yellow, green, etc.

(b) Saturation, defined as the percentage of hue in a color, as when we say pale or deep, weak or strong. Also termed Chroma.

(c) Brightness, defined as the quantitative aspect of the mental image. It is an indication of the apparent amount of color; also called value.

The spectral distribution and intensities of light reflected from a color specimen can be measured and three quantities closely related to the psychological attributes of hue, saturation and brightness can be calculated from the data. In this way the colors of samples, illuminated and viewed under identical conditions, can be compared by physical methods.

The physicist's tool for measuring color is the spectrophotometer. With it he can determine completely the physical basis of any color, whether it proceeds from a small distant source of

by EDWARD MACKASEK, Davidson Enamel Products, Inc.

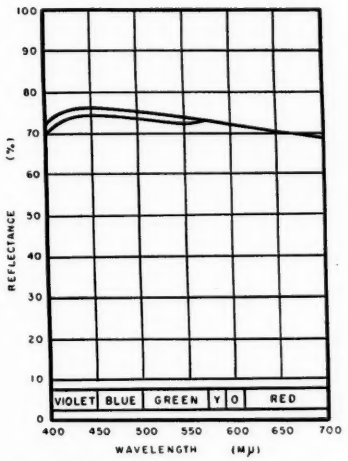
light or from a large luminous area. It also tells him the basis by which the light source imparts its colors to objects.

Spectrophotometric Method

A spectrophotometer produces a spectrum of colors and, by passing a narrow slit across the spectrum, allows only a small band of color to pass through it. By changing the position of this slit relative to the spectrum this narrow band of color can be changed continuously from violet to the red end of the spectrum. This beam of color is then divided into two parts. One of these parts is reflected by the sample to be measured and the other part is reflected by the standard of comparison, which is magnesium oxide. In this manner a comparison is made between the light reflected by the standard and that reflected by the sample. The result appears as a graph or plot showing the percent of light reflected as a function of the various colors of the spectrum. A typical spectrophotometric curve for two different samples of white porcelain enamel are shown in the figure.

The spectrophotometric method of color measurement is an accurate system based upon physical measurements. It is independent of the psychological variations which tend to affect visual determinations. A spectrophotometric curve comprises a permanent record of the color and one does not have to rely on the preservation of the sample to duplicate the color at a future date.

A spectrophotometer is a costly instrument and its installation is justified only if there is a large volume of color matching to be done, as in a laboratory or the color control department of a plant. However, a number of commercial testing laboratories throughout the country are equipped to supply spectrophotometric analyses on order.



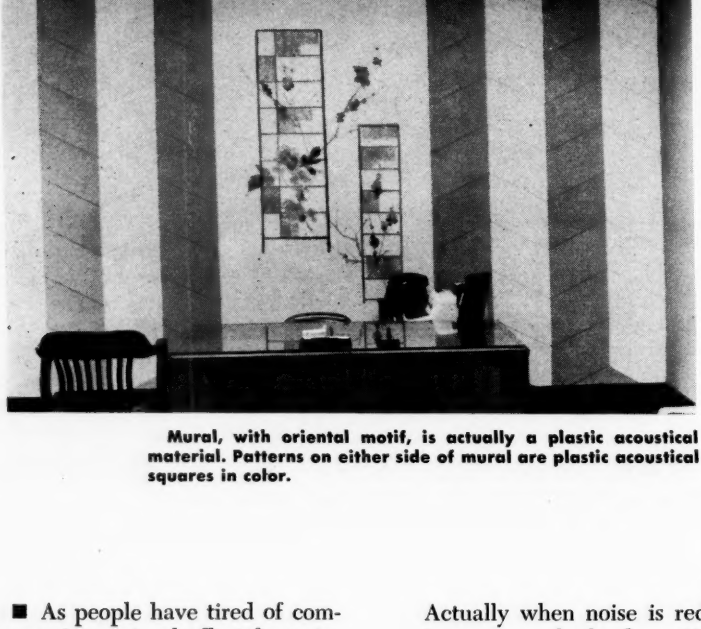
A spectrophotometric curve showing the variation in two tones of white.

Color Permanence:
Acid Resistance, Weather Resistance

The visual appeal of the structure and the psychological concepts that it was designed to create are destroyed if the colors fade. Selection of a material that will retain its color is as important therefore, as selection of the color itself. The color components of the wall must be capable of giving lifetime service without fading or surface separation. Ceramic colors, formulated from inorganic materials and mineral oxides, have proven their ability, over the centuries, to resist deterioration by time and the elements. Porcelain enamel, an important member of the ceramic family, is defined technically as "a substantially glossy inorganic material bonded to metal by fusion above 800° F." It is also described from the color standpoint, by D. B. Judd, as "pigment in a medium of glass supplying its own permanent color as an opaque coat on otherwise impermanent and unattractive metal."

Although color permanence is one of its chief characteristics, not all porcelain enamels are capable of meeting the requirement of lifetime durability in this respect. A proper grade, however, can be assured by including in the architectural specification a paragraph stating that the porcelain enamel shall have grade "A-A" or "A" acid-resistance. The use of "acid-resistance" quality as a measure of "weather-resistance" is based on the fact that atmospheric attack is caused primarily by the presence in the air of acid-forming gases, which, combined with rain, produce corrosive liquids. The correlation between acid-resistance and weather-resistance has been established by the results of a research program sponsored jointly by the National Bureau of Standards and the Porcelain Enamel Institute into the weatherability of architectural porcelain enamels and covering a period of fifteen years. The National Bureau of Standards report of the investigation ("Fifteen Year Exposure Test of Porcelain Enamels"; Building Materials and Structures Report No. 148) comprises the basis for the industry recommendation of not less than grade "A" for weather resistance. Most porcelain enamel colors are grade "A-A"; however, there are a few colors that cannot be manufactured in grade "AA" quality and these are supplied in grade "A."

The acid-resistance quality of porcelain enamel is determined by the Porcelain Enamel Institute "Test for Acid-Resistance of Porcelain Enamels," Bulletin T-7. It can be obtained from the Porcelain Enamel Institute, 1145 19th St. N.W., Washington 6, D. C. It is a simple test to make and not difficult to interpret. A bulletin which gives a graphic and diagrammatic outline of the sequence of steps for making the Acid-Resistance test and for interpreting the results may be obtained from Davidson Enamel Products, Inc., Lima, Ohio. □



Mural, with oriental motif, is actually a plastic acoustical material. Patterns on either side of mural are plastic acoustical squares in color.

Acoustics In Color

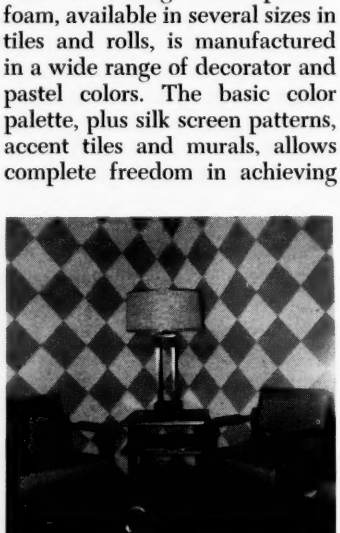
by JEAN CULBERTSON

Mrs. Culbertson is an interior designer and color consultant for the Curon Division of Curtiss-Wright Corp.

■ As people have tired of compromising visual effect for noise control, acoustical manufacturers have been forced to utilize "working colors" in their products. Heretofore the problem of noise has been partially solved by the use of materials that are primarily decorative and with some acoustical properties. Draperies, carpeting, and the cushioning in furniture used in quantity will absorb some of the disturbing noises in any given area. In some instances this type of treatment offers satisfactory results; however more often this has proven to be a costly and impractical solution.

To date the most common method of controlling noise has been covering only ceilings with products manufactured specifically for this purpose. There are various types of cellulose and mineral tiles and perforated metal pans. Most of these products can be applied direct to existing ceilings or by usage of various types of "T" systems. Recently, however, a newly developed multi-cellular plastic-foam* covering has been coming into use for walls and ceilings. The three primary benefits derived from its use are noise control, insulation, and color.

Most acoustical engineers agree that the best place to control noise is close to its origin. Actually when noise is reduced in a room, only the decay time or reverberation is reduced by absorption. The initial noise is still there but it is not able to build itself up due to absorption. A good acoustical material controls the spreading of sound by frictional drag or flow resistance. It absorbs the energy which in turn is dissipated in the form of heat. Therefore, reverberations can be reduced sooner if materials are placed near the origin of sound. Therefore, an acoustical wall covering that employs color and design no longer limits the treatment to ceilings. This plastic-foam, available in several sizes in tiles and rolls, is manufactured in a wide range of decorator and pastel colors. The basic color palette, plus silk screen patterns, accent tiles and murals, allows complete freedom in achieving desired decor in any room.



This reception room features an acoustical wall made of cellular plastic material which provides color, noise control and insulation.

The proper use of color helps establish the desired psychological effect on the people working or living in any area. Both business and industry have found that when color is put to work it will boost morale, relieve tensions, and increase efficiency.

Office working conditions can be greatly improved by sound conditioning the walls and at the same time making them visually appealing. By employing soft colors in large office areas it is possible to maintain good light reflexion and to keep eye strain and monotony at a minimum. Cool colors are best for work areas where machinery increases the room temperature. Small offices will appear to have greater dimensions when color is used skillfully.

Many hospitals are realizing the value of using a colorful, acoustical wall and ceiling covering to create a quiet and pleasant atmosphere in patients' rooms. The new foam is reported to be a bacterio static and actually assists in correcting the staphylococcal problem.

Semi-public wall areas in any type structure can be treated with this acoustical product to contribute to the decor of the entire room.

Color in the acoustical industry holds a vast potential for architects seeking products with functional beauty. □

*"CURON" by Curtiss-Wright Corporation

Principles of Color Harmony

by HOWARD W. STRUCK
Manager, Architectural Service Department, Pratt & Lambert, Inc.

■ Color in building has almost limitless possibilities. The correct choice and application of color is second in importance only to location and design in imaginative and creative planning.

The high acclaim given to leading architects for the outstanding color treatments used in recent structures shows increasing awareness of the importance of color in buildings.

The effect of color on the senses is remarkable, doing at times almost the impossible. Small rooms can be made to appear larger, large rooms to look smaller. While good planning seldom need apologize for design, there are times when structural requirements make it necessary to place a beam or support out of balance with the general plan. When this happens, the correct use of color can make such factors inconspicuous. Rooms with northern exposure are given a feeling of warmth, and the opposite for rooms of southern exposure. The effects of color on the emotions can be utilized in subtle or bold approach.

It is being realized that the proper use of color is as much a science as it is an art. It is no longer mysterious knowledge that comes only from art schools. Today, color harmonies can be devised with mathematical precision.

When selecting tints and shades of different colors for decoration, the normal spectrum value order should be maintained. If, for example, orange and blue are to be used in a color scheme in their normal values, the blue should be darker than the orange. If, however, the blue is lightened with white to equal or exceed the value of the orange, the result becomes unpleasant because the normal spectrum value relationship of these two colors has been violated.

It is permissible to lighten any spectrum or intermediate color, provided all other colors of normally higher value to be used in combination with it are also lightened to a corresponding degree. The entire color wheel of hues may, in fact, be lightened or raised in value to a higher degree by adding proportionate amounts of white to each color. When so lightened, we enter the field of tints which are so successfully used in decoration.

Chroma is the degree of color strength or saturation of a hue. In its purest state, color has maximum chroma, or fullest intensity. When color is grayed, either with the addition of black and white (gray) or its opposite (complementary) color, the chroma is reduced.

In decoration, it is generally true that colors strong in chroma are not as pleasing as colors low in chroma. It is hard to live with bright, strong colors, especially if they are used extensively. On the other hand, soft, grayed-down colors are pleasant. Red, blue, green, yellow and other spectrum colors are designated as chromatic. Black, white and also mixtures of black and white (gray) are achromatic or neutral. White, gray and black, all achromatic, harmonize with all colors.

Basic Principles

The rules for harmonious color relationship by color contrast are the True Complement, Split Complement, Triad, Alternate Complement, Double Complement, and Analogy. Contrast is the most pleasing relationship of color; however, a Monochromatic color relationship can be very pleasing. Monochromatic color relationship is variation in chroma and value of a single color.

In addition to the orderly relationship of colors themselves, there are simple, basic rules for perfection of harmonious balance.

Principle number one: avoid using equal areas of contrasting colors. The amount of contrasting area should be governed largely by the degree of brightness or chroma in which the contrasting color is used. The smaller the contrasting area, the more brilliant the contrasting color may be, and conversely, the larger the contrasting area, the more neutral it should be.

Principle number two: if figured areas are used in a decorative scheme, they should be balanced with compensating areas of plain colors. There must be balance in the proportion of figured and plain areas used together, and the greatest compatability is achieved when one or more of the basic colors used in the plain areas are repeated in the figured area.

Principle number three: color can be used advantageously to relieve the feeling of bad proportion. Whenever rooms have to be out of proportion in dimensions, the illusion of good balance can be achieved through intelligent application of color.

Principle number four: colors should be darker at the base and progressively lighter as they approach the ceiling. This suggests that floors be of darkest value, furnishings a little lighter, walls considerably lighter and ceilings lightest of all.

Principle number five: in developing a color plan for an entire building, establish a theme color that will harmoniously link the color schemes of

all units of the building. From one area to another, visual harmony should be sustained.

Principle number six: color intensifies with area and with reflection. That is why selecting a suitable background wall color is not as simple as it may seem. Paint colors are usually selected from small color card chips or by painting a small area of wall or trim. Such small areas of color are deceiving because the degree of intensification is not easy to estimate. The inclination is to select colors that are too bright.

Light's Influence

The amount and quality of daylight has a direct influence upon the appearance of colors. Paradoxically, the chroma of a color is lowered both with bright sunshine and with subdued light. Bright sunlight tends to lighten colors. Colors are truest, least distorted, when seen in a north light on a clear day. These same colors, viewed in strong sunlight, will not appear more intense (stronger in chroma) as might be expected, but quite the opposite, they will appear less intense. When the intensity of light is reduced below normal, as with the approach of darkness, bright colors in a room appear to fade out. This effect, from steadily diminishing light, is like the gradual addition of black to the colors. The colors seem to grow darker and darker. Colors seem to be reduced in chroma (lose brightness) both in bright sunlight and in subdued light. As daylight fades into twilight, another phenomenon occurs. The darker colors in the spectrum seem to grow lighter and the lighter colors in the spectrum seem to grow darker. In other words, the differences in values tend to equalize. These variations in appearance of color can be disconcerting when working out a color plan because colors which look well in one quality of light may appear distorted in a different quality of light. That is why it is always wise to plan the color scheme for the time of day or night when the space is most extensively used and to select or approve the colors under the light that would then prevail.

Artificial light often does unexpected things to paint colors. Incandescent light adds yellow to colors. For example, rose becomes more orange, blue becomes turquoise, and turquoise becomes green. Fluorescent light behaves differently from incandescent. To be safe, before approving a color, it is always best to view it under the kind of artificial light to which it will be exposed. The introduction of colored bulbs has a definite influence on interior painted surfaces. The colors used are generally blue, green, yellow and pink. It should be remembered that these bulbs will have the effect of accenting or subduing painted surfaces, depending upon which color bulb is used. In general, warm colors are subdued by blue and green bulbs and accented by yellow and pink. Cool colors are generally accented by blue and green and subdued by yellow and pink.

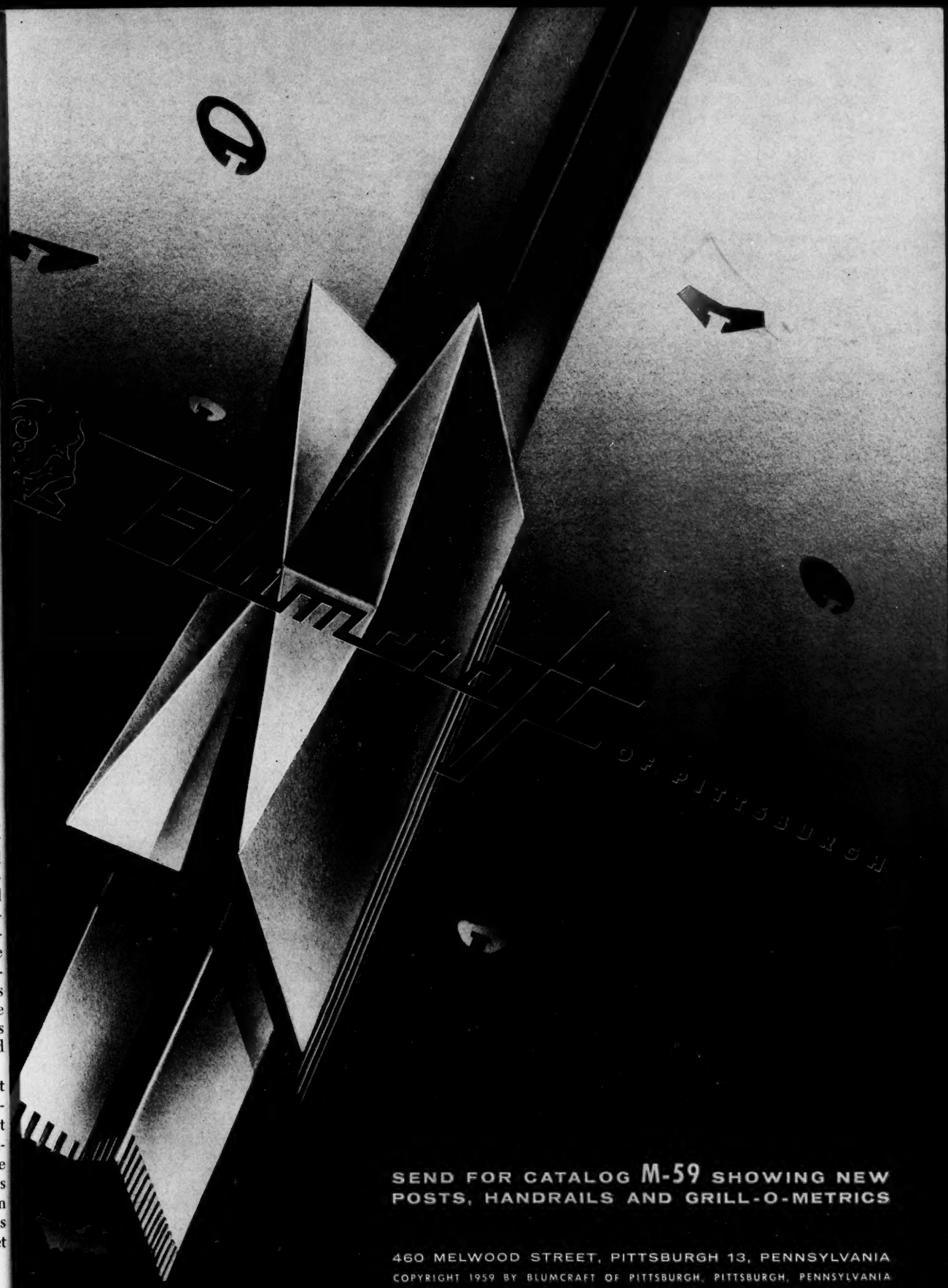
Psychology

All individuals, except the color blind, make instinctive adjustments to color. For example, a discordant combination of orange and blue (a dark orange in combination with a light blue) attracts the eye which involuntarily tries to restore the colors to their normal spectrum tone order, but quickly tires in effort. Our physiological reactions prove the innate desire for color equilibrium. If focussed for long on a bright primary color, the eye tires and needs relief in color contrast.

The psychology of color cannot be defined as a complete exact science because there is much yet to be discovered, but enough is known for practical purposes. It is well established that color can excite, depress, delight, annoy, soothe or irritate according to the combination of colors used. We know that color by itself can help create an atmosphere of restfulness, concentration, gaiety or their opposite emotions. We need only to follow the proven color principles to produce the desired reaction. To simplify understanding, we have interpreted color psychology largely from the standpoint of spectrum colors. However, the degree of psychological reaction to a given color is also dependent upon the degree of brightness or dullness of that color. The more brilliant the hue, the more stimulating the effect. Bright colors soon become tiring. In the work shop, office, study or home, where we spend most of our waking hours, it is desirable to use colors that are not emotionally fatiguing. It is equally important that the colors chosen for use in these areas be reduced in chroma to the proper degree of grayness. The function of the room should have a bearing on the color selection. Grayed greens and blues are particularly well adapted to promote thought and induce concentration. On the other hand, a relatively bright, cool yellow is ideally cheerful for the kitchen. While living room wall colors should be restrained to create an atmosphere of restfulness, a more stimulating color is preferable in the dining room.

The same principles are adaptable to the school, office building, hotel, hospital and factory. In kindergartens, for example, where much time is devoted to organized play, the wall colors should be bright and gay, whereas in the studious higher grades, light tints only should be used on the walls. Color selections based on psychological responses offer great possibilities for the hospital and considerable progress has been made in this field, using subdued colors for housing highly nervous patients and brighter and more stimulating colors for patients who would benefit from mild stimulation.

Recognizing the important part which color plays in architectural design, Pratt & Lambert has developed "Calibrated Colors" which are correct in value and chroma, and has trained its architectural representatives in their proper use. Their services are available to any architect upon request. □



SEND FOR CATALOG M-59 SHOWING NEW POSTS, HANDRAILS AND GRILL-O-METRICS

460 MELWOOD STREET, PITTSBURGH 13, PENNSYLVANIA

COPYRIGHT 1959 BY BLUMCRAFT OF PITTSBURGH, PITTSBURGH, PENNSYLVANIA

Chicago AIA Comment

a column about AIA Chicago Chapter matters and members by R. Rea Esgar, AIA.

This is the time of year when we architects come awake to a sudden realization that if we're going to get any photographs taken of our favorite projects with benefit of leaves on trees and bushes full, we must do it now! For many of us it will be a case of trying for a color shot as the leaves are turning and before they start to fall and again for a surprising number of us procrastinators it will be a case of dreaming how beautiful a sparkling snow scene can be in the early morning before it's all tracked up! These photographs that you should get taken, are important to the most satisfactory general public relations effort made by your Chicago Chapter, judged on a year in year out basis.

We are referring to the Honor Awards Program sponsored jointly by the Chicago Chapter AIA and the Chicago Association of Commerce and Industry in appreciation of the good architecture being done in Chicagoland. Even this past year when the activity left something to be desired, photographs of the buildings honored were carried by every Chicago paper, often on full page layouts with the obvious fact clearly spelled out that these structures are done by architects and that they are a subject for civic pride. In addition, special issues of the magazines "Commerce" and "Inland Architect" devoted much space to the naming and showing of all cited entrys. It would be difficult to obtain this type of publicity for architects in any other way and certainly would be impossible for a modestly budgeted public relations program.

None of us can tell exactly to what extent this activity creates a desire for better architecture but we do know that it is a reminder to the public in general that they too can have the best in building *with* an Architect, and we are reminding you here that submitting your entry will be practically painless if you start collecting the photographs now. The Civic Pride Luncheon isn't until next April, but planning for it has started. You can do your share.

□

You have now received the August issue of the "AIA Journal" and this is to remind you to read Samuel T. Hurst's "Critique." If it is too true, and you're a wee bit depressed, turn to "Individual Theories of Design," and see how human and how occupied with familiar problems the big names are. All in all every section is worth your while. Take the issue home with you and give up television for one whole evening—you'll enjoy reading this issue of our national publication.

□

The job of being an architect in the full sense of the word is getting to be more incomprehensible every day, especially when we read of some isolated example where an architect is

VAN KEPPEL-GREEN OF CALIFORNIA

DESIGNERS • MANUFACTURERS
MODERN FURNITURE

Announces the Appointment of

VKG of Chicago

664 N. Michigan Ave.
SUperior 7-1763

EXCLUSIVE DISTRIBUTORS in

- ILLINOIS
- INDIANA
- IOWA
- KENTUCKY
- MINNESOTA
- MICHIGAN
- MISSOURI
- NEBRASKA
- N. DAKOTA
- OHIO
- S. DAKOTA
- WISCONSIN

Catalog and Price List Available upon Request

UNIT

UNIT STRUCTURES, INC.
General Offices—Peshtigo, Wisconsin

SALES OFFICES:

ILLINOIS

UNIT STRUCTURES, INC.
1217 South Seventh Avenue
Maywood, Illinois
Telephone: FIlmore 5-2822

LAMPITT & ASSOCIATES
217 Court Street
Pekin, Illinois
Telephone: 6-3115

IOWA

L. W. GALLAGHER
P. O. Box 595
Davenport, Iowa
Telephone: 6-1822

MISSOURI

ENGINEERING PRODUCTS CO.
612 West 47th Street
Kansas City 12, Missouri
Telephone: WEstport 1-7915

ROOF STRUCTURES, INC.
311 Thornton Avenue
Webster Groves 19, Missouri
Telephone: WOodland 2-6368

held responsible for the failure of some new material which didn't perform as advertised. I would not take sides in any particular case but I would like to point out just how staggering in scope becomes your job as Architect when you put your seal on the "record set for permit purposes."

First you imply that the drawings were made under your direct supervision and in the case of a busy office this is in itself job enough for any man. But, no, you are also responsible for the stability and safety of the structural design, the safety of the building as a habitable series of adjoining spaces, properly decorated, the safety and proper design of the plumbing system, the heating system, the air conditioning system, the electric system, the burglar alarm and the fire protection layout and since all this is justifiable under our laws because we must provide for the common welfare, we must also be responsible for the appearance of the finished structure.

Of course, before we could do all the above we counseled the client on the land purchase and zoning, financing, and certainly the land planning had to be determined and landscaping requirements forecast. Existing utilities had to be reviewed and probably borings were recommended and analyzed. And by all means we didn't forget the traffic flow and availability of the site to ordinary transportation. All this you do and then are held accountable by the courts because you didn't personally investigate a new material but assumed the manufacturer's literature to be accurate. You have quite a job, Mr. Architect!

□

And how does the Architect determine who is expert in each field? First, by judging what each man has done before, then by a small assignment gradually increasing the magnitude and responsibility as the man proves capable. It is that word "responsibility" which causes us to stop and examine our situation. Regardless of who the expert is, you the architect are responsible under the law, and this you can't escape and still call yourself Architect!

□

The prospects of a successful building are greatly enhanced by the licensing of the trades and their high standards of workmanship, but isn't it about time we started thinking about enhancing the prospects of a successful design by licensing and certification of the various experts, and there are at least six general categories, upon whom we must depend and thereby legally transfer some of project?

□

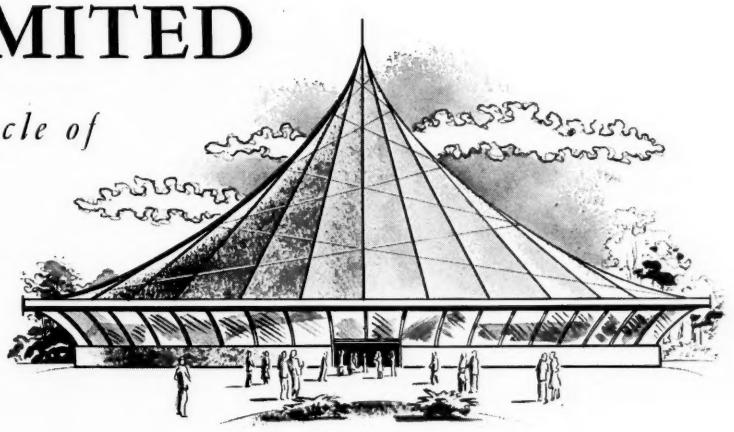
Certainly licensing must mean something or be worse than none at all and it just might be that the entire area in which an architect or engineer works would become so involved in bureaucratic red tape that our freedom to act for the client and the public would be endangered. In the meantime it is for us who try to promote high standards of performance to remind the profession of its staggering responsibilities and to be ever alert to ways and methods by which we, too, can possibly become good Architects in the fullest sense of that very big word.

□

It just may be possible that there are yet some human beings somewhere who can still perform all the functions of an architect but I do not

DESIGNS..... .....UNLIMITED

thanks to the Miracle of LAMINATION!!



A new era of freedom in architectural design is here! You are free, Mr. Architect, to dream of exciting new combinations of structure, space and mass . . . free to design in a boundless latitude that is yet within the realm of economic reality.

As pioneers of lamination in America, we offer the services of master craftsmen who can and will custom build laminated wood members to meet your most advanced design requirements.

Our staff of experienced structural engineers, trained product consultants and efficient estimators can help you keep your projects "in the money". For complete details, write or call us. No obligation, of course.

SEE OUR CATALOG IN SWEET'S
OR WRITE FOR COPY

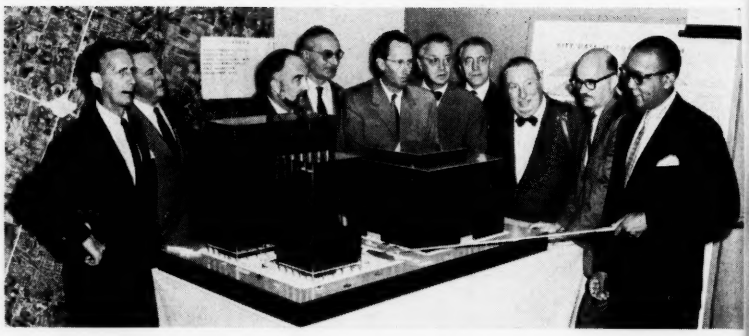
PLANTS AT
PESHTIGO, WISCONSIN
AND MAGNOLIA, ARKANSAS
CHARTER MEMBER OF AITC

UNIT STRUCTURES, INCORPORATED GENERAL OFFICES: PESHTIGO, WISCONSIN

know of a building small enough or simple enough for this to be so. It is this need for experts which gives rise to business titles like "Joe Doakes and Associates" or "The Architects, Engineers and Promoters Cooperative." The architect finds he must gather around him the specialists who can be counted upon to design in their individual fields intelligently, cooperating with the other specialists while the architect furnishes the coordination and the "horse sense" for the over-all project. Even this is an assignment.

□

Two well known paint manufacturers have recently started distribution of new Architect and Decorator color selector kits. Devoe & Reynolds with a 1" thick 9 x 10" volume of swatches which are very compact, and easy to carry and use. Benjamin Moore with an 8½ x 11 x 4½" deep metal case complete with even wood finished samples. These are valuable tools for the architect and both companies are to be complimented. It's a pleasure to mention them here.



Chicago Chapter 'Hosts' Visiting French Architects

French architectural dignitaries above are learning first-hand about the future development of the City of Chicago from the Department of City Planning. Viewing a model of the proposed civic center and 'face lifted' City Hall are: left to right, Ira J. Bach, Commissioner, Department of City Planning, Roger M. Barade, Chief Architect of the University of Dijon; Paul Picot, Secretary-General, International Union of Architects; Marcel Lathuilliere, President, Regional Council of Architects of Algiers; Pierre LeFebvre, Architect, Rouen; Professor Henry Larrieu, Member, Academy of Architects, Paris; Jacques Barge, First Architect of Government Buildings and President, Regional Council of Architects of Bourges; Mr. William Bachman, President, Chicago Chapter, American Institute of Architects; and, with pointer, Clifford Campbell, Deputy Commissioner, Department of City Planning.

The Chicago Chapter of the American Institute of Architects acted as host to a group of 35 architects and engineers on Monday, August 31, and Tuesday, September 1. The group came to Chicago to gain ideas about city planning, architecture and construction. In addition to the Department of City Planning the group visited famous Chicago buildings and various Chicago architectural firms.

Lighting Problem?

Englewood

experienced lighting engineers can assist you by supplying proved, efficient answers to even your most difficult electrical specification problems on

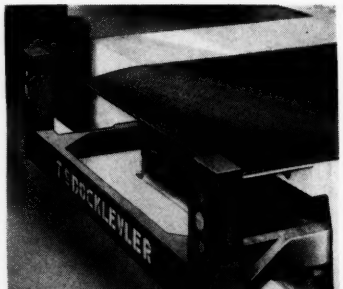
INDUSTRIAL, COMMERCIAL & RESIDENTIAL LIGHTING

Take full advantage of this widely used Englewood service—no obligation. Next job, consult:

Englewood ELECTRICAL SUPPLY CO.
Largest Stocking Distributors of Leading Electrical Lines in the Mid-West.

CHICAGO	ROCKFORD	SOUTH BEND	GARY
5801 S. Halsted St.	124 N. First St.	325 N. Lafayette Blvd.	4172 Broadway
HUdson 8-6161	Dial 3-5441	Central 8233	Dial 4-9441

Costs NOTHING to operate!

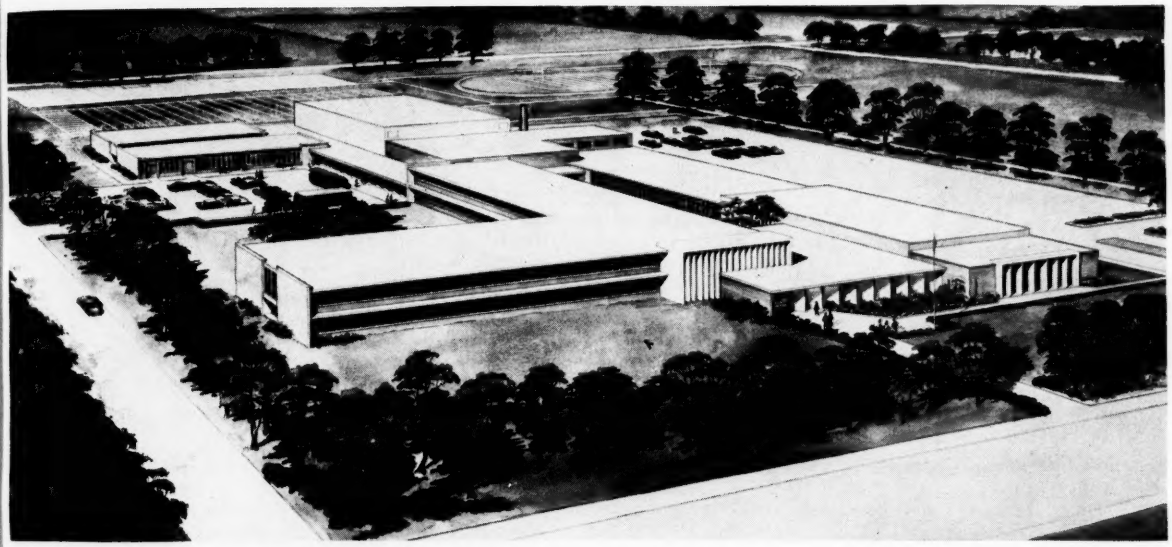


DOCKLEVLER automatic loading dock RAMPS—
completely truck actuated

Simple counterbalance design eliminates complicated mechanisms requiring constant and costly repairs. The Docklevler is available in recess models for prepared pit installations and in package units for front-of-dock placements.

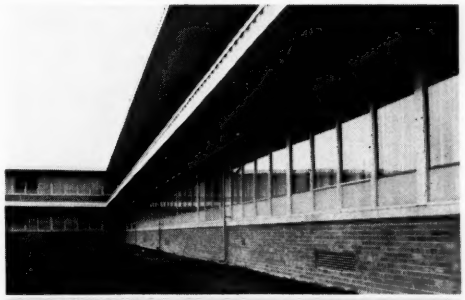
PALLET SALES
CORPORATION
NEW YORK 122 East 42nd Street • OXford 7 2850
CHICAGO 4754 W. Washington Blvd. • ESTebrook 9-1712

More Than 100,000 Sq. Ft. of Exposed Flexicore Used in this High School



Thornton Fractional Township High School South, Lansing, Ill.
Architects—Consoer & Morgan, Chicago

Exterior views showing the use of exposed Flexicore for canopies.



Yes, more than 100,000 sq. ft. of exposed Flexicore ceiling, caulked and painted, was used in the classroom areas with a suspended acoustical ceiling in the corridors. Flexicore has met the requirements of the architect—What were these requirements?

First, a need for quick construction through the cold-weather months, enabling the building to be enclosed for winter construction.

Second, a long overhang to provide light control in the classrooms, also simplify construction.

Third, a method for providing lateral bracing in the 2-story building without the use of costly and obstructing steel beams.

Fourth, a floor and finished ceiling in one unit.

Fifth, a fire-proof floor and roof construction.

Sixth, low maintenance.

Seventh, long span with minimum depth.

and, oh yes, low cost—the entire building, including an AAU regulation swimming pool and 950-seat auditorium, was constructed for an actual $13.77 per square foot.

Calumet
FLEXICORE CORP.
BOX 539
EAST CHICAGO, INDIANA
Phones:
East Chicago: EXport 8-0940
Gary: TUrner 6-9210
Chicago: ESsex 5-8011

American-Marietta
COMPANY
Concrete Products Division
9301 GRAND AVENUE
FRANKLIN PARK, ILLINOIS
Phone Gladstone 1-1610
NAtional 5-7535

ADDENDUM

Chicago Chapter, AIA 1959-1960 Committees

Building Industry Affairs Committee

Council Chairman: Bertram Weber

Committee Chairman: Ralph Stoetzel

Members: Louis Jacobs, Richard Mine, Jr., Jack K. Ota, Thomas E. Cooke, Basil S. Georges, Paul D. McCurry, E. R. Erickson, Adrian Lozano, Lester Johnson, G. Hugh Tsuruoka, William Pavlecic.

Education Committee

Council Chairman: Jack D. Train

Committee Chairman: Daniel Brenner

Members: Robert Saichek, Fred Wiesinger, Walter H. Sobel, Walter A. Netsch, Jr., Robert C. Swanson, Earl Swensson, Harold A. Stahl, H. B. McEldowney, William F. Bernbrock, H. J. Mikolajczyk, Martin B. Schaffer, Raymond A. Peterson, Thomas A. Emma, Albert H. Nemoede, P. J. Papadopulos, Gertrude Peterhans.

Honor Awards Committee

Council Chairman: Bertram Weber

Committee Chairman: Samuel Lichtmann

Members: M. D. Dubin, H. B. McEldowney, Arthur Deimel, Alfred Alschuler, Winston Elting.

Membership Committee

Council Chairman: Marvin G. Probst

Committee Chairman: Siebron J. Eppinga

Members: Everett F. Quinn, Arthur Gouvis, Alfred J. Rosen.

Office Practice and Procedures Committee

Council Chairman: Jack D. Train

Committee Chairman: Duane B. Rowe

Members: John V. McPherson, Ludwick T. Blumberg, Henry E. Kussa, Raymond A. Peterson, Leif E. Olsen, Jr., Godfrey I. Duke, Kenneth R. Woods, Albert J. DeLong, Herbert B. Beidler, William B. Baime, Levon Seron, Donald A. Schiller, Robert A. Anovitz, Raymond J. Brejcha, William McConnell, William P. Erickson, Jr., William F. Bernbrock, Samuel Schmall.

Planning Committee

Council Chairman: Spencer B. Cone

Committee Chairman: Matthew Rockwell

Members: Donald Billman, T. G. Thomas, Seymour S. Goldstein, Sam Sit, Howard E. Kessler, Robert A. Ward, Ed Furlong, Albert H. Ramp, John H. Alschuler, Paul Frank Jerne-gan, Stanley W. Hahn, Leonard Way-man, William F. Deknatel, Wilbur A. Mullin, Arthur Deimel, G. A. Hutchin-son, Derald M. West, Charles Klopp, Charles M. Brubaker, Robert F. Kill, James Arkin, Francis M. Baldwin, William B. Baime.

Preservation of Historic Buildings Committee

Council Chairman: James A. Ware

Committee Chairman: Leo J. Weissenborn

Members: Eugene F. Stoyke, John Demuth, David Klafter, Edw. F. Jans-son, Seymour Altman, Earl H. Reed, John V. Anderson, Archie L. Backlin, Ruth Perkins.

Program Committee

Council Chairman: Richard Bennett

Committee Chairman: Charles Catlin

Members: Jerrold Loebl, William B. Baime, Paul D. McCurry, William T. Weber.

Publication Committee

Council Chairman: R. Rea Esgar

Committee Chairman: Daniel C. Whitehead

Members: Watson A. Healy, William R. Baker, Hans A. Friedman

What IS a good

PROPERTY INVESTMENT?

Real Estate sales and loans must offer long-term security . . . a characteristic of GENUINE LATH and PLASTER . . . its durability and ease of maintenance give the buyer and lender all the certainty he needs.

All property eventually changes hands . . . a matter of concern to the architect who knows that functionalism and design *must combine* to represent *sound, long-term* investment *value.*

better . . . always . . . with

GENUINE LATH AND PLASTER

THE LATHING FOUNDATION OF CHICAGO
221 North LaSalle Street, Chicago 1, Illinois

Telephone Planning Helps Sell Homes

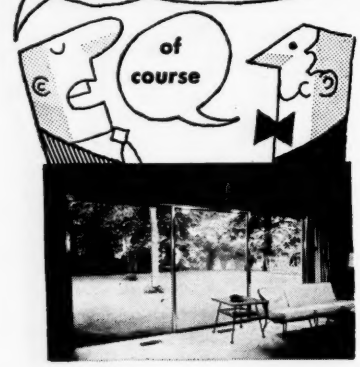
Here's a new "built-in" home buyers are looking for: concealed wiring and convenient outlets for plug-in phones throughout the house. Color phones go right along with it. And because there are additional outlets, home buyers can have the telephones put where they want them.

These selling features are inexpensive when you ask us to install them while you're building.

Telephone planning is a service designed to help you sell homes. Call us during your planning stages so we can help you include it in your blueprints. We'll be glad to work right along with you.

ILLINOIS BELL TELEPHONE

TELEPHONE PLANNED HOMES

You're better all-ways when you specify
GSD SLIDING GLASS WALLS
of course

• Utility • Beauty
• Quality • Economy
42 stock sizes — or custom. For 1/4" plate or 1" dual glazing. Complete specs. in Sweets.
Glass SHOWER DOOR CO., Inc.
105 W. Wacker, Chicago 1, FR 2-0240
ALSO MANUFACTURERS OF:
• Complete Package Shower Stalls
• Tub Enclosures • Precast Receptors
• All Aluminum Sliding Medicine Chests

Robert W. McCormick, Adrian Lozano, Joseph Voska, Jr., Louis E. Fideler, Jr., Thomas W. Claridge, Edward A. Campbell.

Public Relations Committee

Council Chairman: Kenneth A. McGrew

Committee Chairman: Robert B. Picking

Members: David Saul Klafter, M. D. Dubin, Donald A. Turner, Leif Skadberg, Edmond N. Zisook, Edw. Ravenscroft, James R. Keys, Louis E. Fideler, Jr., Lambert Soucek.

Young Architects Group: J. Eric Anderson, R. Babbin, Robert Leo Piltz, Wm. P. Friend, R. H. Shelp, Harry F. Anderson, Dennis T. Toyomura.

Research Committee

Council Chairman: James A. Wares

Committee Chairman: Wilson Connell, Jr.

Members: Daniel Comm, Sam Sit, John H. Alschuler, Kenneth R. Plank, Fred Thulin, John H. Holcomb, F. A. Szilvasy, Kenneth A. Smith, Kenneth R. Woods, George A. Hutchinson, Derald M. West, Andrew J. Clyde.

Building Code Advisory Committee

Members: Spencer B. Cone, Samuel A. Lichtmann, Fred Dolke.

Citizens of Chicago Zoning

Mark D. Kalischer, Representative.

F.H.A. Relations Committee

Members: Philip B. Maher, Chair man; Alfred S. Alschuler, Jr., Edwar Halstead, Norman J. Schlossman, D Coder Taylor, Arthur D. Dubin.

Technical Advisory Committee

Thomas E. Cooke, Representative

Architect in Training Program

William B. Cobb, Chairman.

Liaison Representatives

Edward H. Matthei, Vent. & Ai Cond. Contr. Assoc. of Chgo.; John F Fugard, Jr., Chicago Association o Comm. & Industry.

AIA, AGC, Summit Meeting

Top officials of the American Insti tute of Architects and the Associate General Contractors met together i Washington, D.C. in mid-summer t discuss strengthening the relationshi between these two major groups i the construction industry. In additio to striving for increased understand ing, an agenda was prepared whic covered, among other things, th single contract system, legislative poli cies, urban redevelopment, retaine percentages, and scholarships.

Attending the meeting were: Joh

INFORMATIONAL MEETINGS AND MATERIALS

MANUFACTURERS OF QUALITY BUILDING PRODUCTS

"DESIGNER MANUFACTURER CONTRACTOR

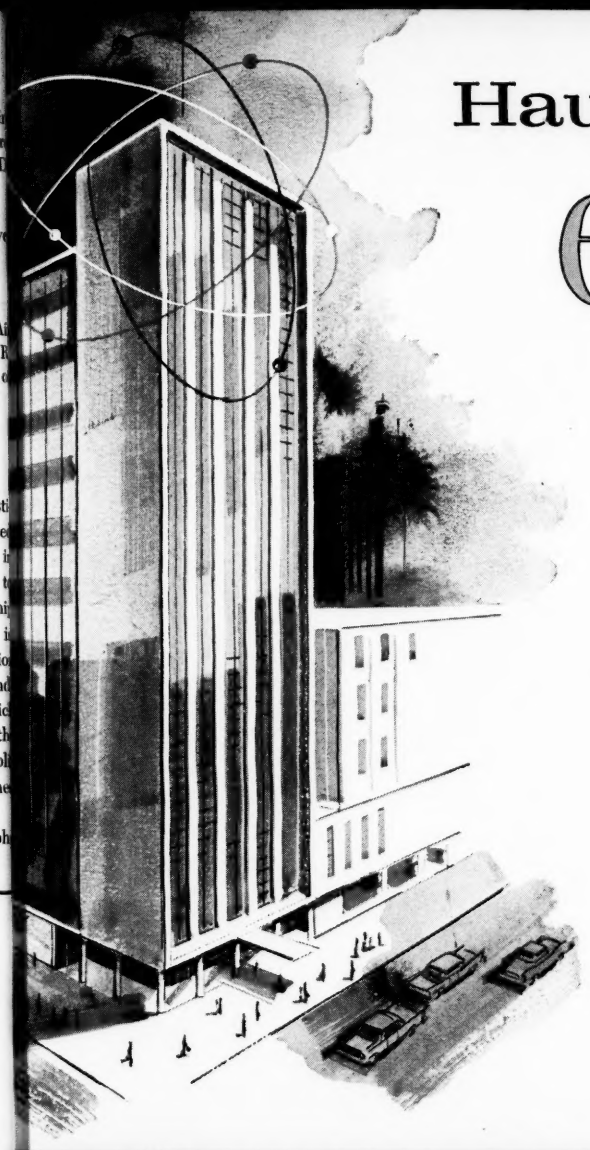
CHICAGO CHAPTER

Producers' Council, Inc.
228 N. LaSalle St., Chicago 1
Suite 2103 • Ph. RA 6-0578

WATCH YOUR MAIL
For Announcement Of
First Fall Meeting

AFFILIATED WITH THE AMERICAN INSTITUTE OF ARCHITECTS
THE PRODUCERS' COUNCIL INCORPORATED

—Today, building the greater Chicago of Tomorrow"



Haughton elevonics

wellspring of progress in vertical transportation for multi-floor buildings

Elevonics . . . the application of electronic devices for the betterment of elevator design and performance.

It is in this special field of science that Haughton Engineers are opening new doors to progress in elevator technology. For example: Haughton Elevators that *think for themselves* are now operational in buildings coast-to-coast. They combine the economy and efficiency of true automated (operatorless) control with new swiftness, comfort and safety.

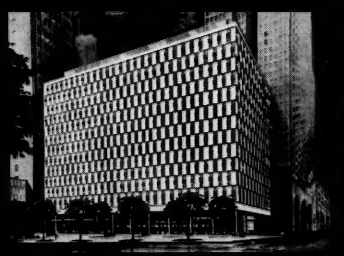
Motivated by an amazing electronic brain that anticipates elevator service needs at every moment in a busy building's life, these elevators are dispatched at proper time and in proper sequence to meet traffic needs exactly.

And, though complex is the job they do, Haughton operatorless elevators that *think for themselves* feature simplified design to assure complete reliability and substantial savings in operation.

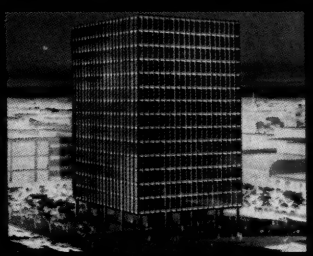
If you want to upgrade elevator service and cut costs, call on us. A background rich in experience, and a future dedicated to the quest for new advancements in elevator technology, are your assurance we can best meet your elevator design, modernization or maintenance needs.

throughout America . . . Haughton Operatorless Elevators

tephens T. Mason Building, Lansing, ichigan; Smith, Hinchman & Grylls, rchitects and Engineers



National Bank of Detroit, Detroit, Michigan; Albert Kahn & Associates, Architects



Libbey-Owens-Ford Building, Toledo, Ohio; Skidmore, Owings and Merrill, Architects

Universal Building, Washington, D. C.; LeRoy Werner, Architect

EMBLEM OF EXCELLENCE IN VERTICAL TRANSPORTATION

haughton
elevator company

DIVISION OF TOLEDO SCALE CORPORATION
Executive Offices and Plant, **TOLEDO 9, OHIO**
FACTORY BRANCHES TO SERVE YOU COAST-TO-COAST

Noble Richards, AIA president; James W. Cawdrey, AGC president; George S. Wright, co-chairman of the National Joint Cooperative Committee for the AIA; Carl W. Olson, co-chairman of this committee for the AGC; AIA Executive Director Edmund R. Purves, and AGC Executive Director James D. Marshall.

Screens Available In Color

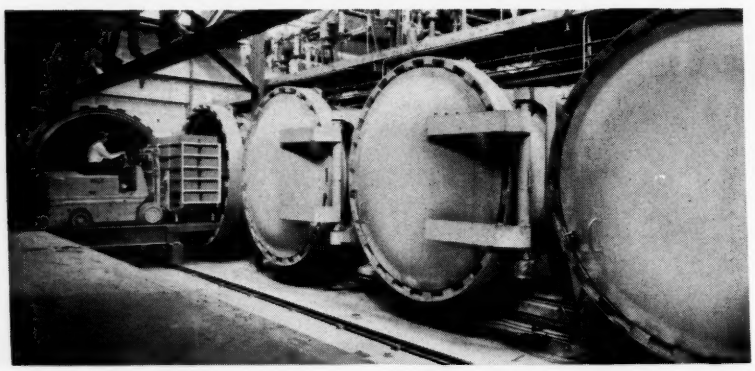
The Bridgeport Brass Co. is providing colored window and door screening to manufacturers of these products. The screen is produced in modern pastel colors by priming aluminum strip at the mill and coating it with two coats of baked enamel. The material has been subjected to accelerated exposure tests and, according to the manufacturer, has proved usable for household, institutional and industrial screens.

For the Contemplative Architect

An "Ode to a Restless Architect" sub-titled "Why There Are More Flue-liners Than Flues" has been published by the Allied Masonry Council of Washington, D.C. The Ode comments on the architecture of the past and the present, the role of the architect in the community and the hopefully increasing role of various masonry units in the architecture of the future.

TESTING

3000 BLOCK AT ONCE



Autoclaving as a CURING PROCESS is at the same time an A. S. T. M. TEST for soundness of materials in a block.

The identical technique used by the A. S. T. M. as the most rigorous test for soundness of ceramic glazedware (ASTM C 126), Portland Cement (ASTM C 150), and Lightweight Aggregate (C 331) is used in Autoclaving IB PRESHRUNK WAYLITE BLOCK.

One cycle of Autoclaving will reveal unsound materials immediately—thus preventing their inclusion in the wall.

This means that every IB Preshrunk Block delivered to your job has been tested to eliminate spalling and popping.

May we bring you an IB Autoclaved Waylite Block to show you "the big difference"—or ask for your FREE copy of "This is Autoclaving."

Illinois Brick COMPANY
228 NORTH LASALLE STREET • CHICAGO

MEMBERSHIP

AIA CHICAGO CHAPTE

Newly Elected Corporate Members

CHARLES VINCENT ROWE

Born: Chicago, Ill., 1919. Education University of Illinois, Champaign Professional Experience: Worked en

tirely under su pervision o Charles B. Row from draftsma to job captai and finally mem ber of firm. Nov has own firm a 720 Wesle Drive in Park Ridge. A member o the Illinois Society of Architects an American Concrete Institute. Spen four years with U.S. Air Force Licensed in Illinois.

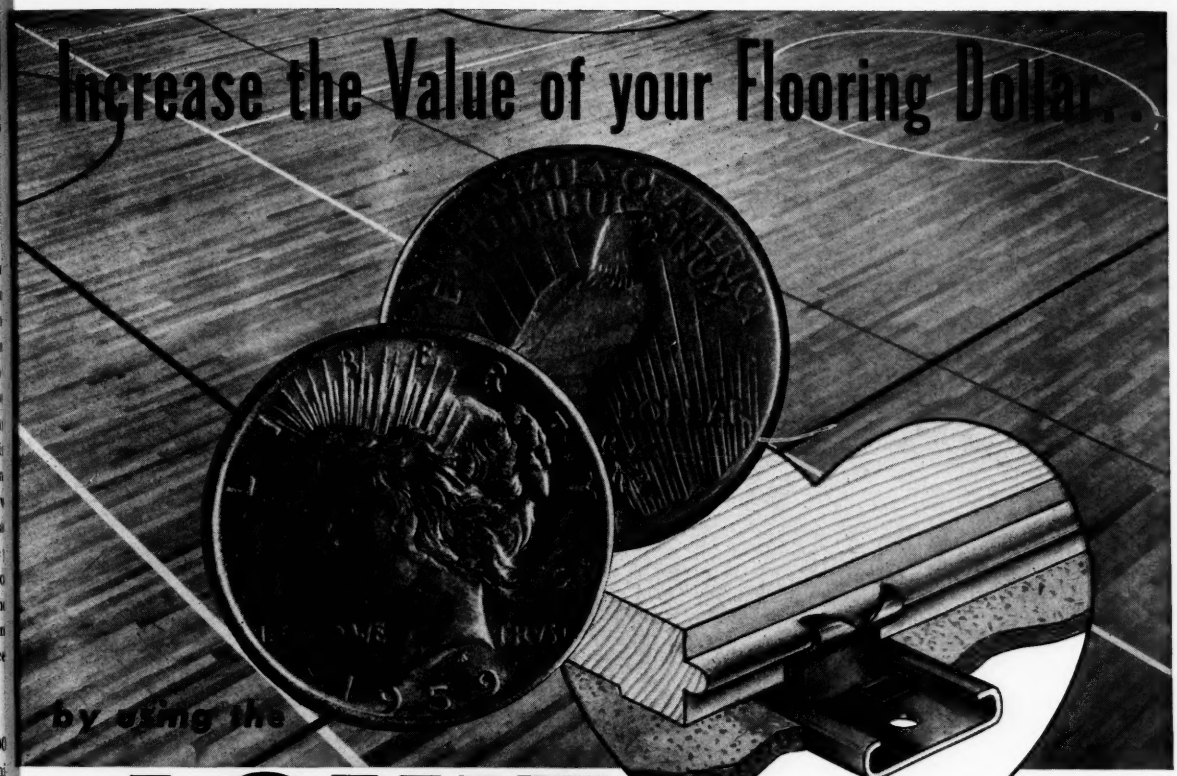
FRANCIS M. BALDWIN

Born: Correctionville, Iowa, 1900 Education: Chicago School of Archi tecture, Bachelor of Architecture Masters from University of Pennsyl

vania. Travele widely in South ern Europe. Pro fessional Experi ence: served a draftsman i various office 1923 through 1928; now prac ticing in own name at 19 South La Salle. Licensed in Illinois, Indian and Wisconsin. Member Illinoi Society of Architects.

LOUIS H. HUEBNER, AIA, has an nounced the formation of a new part nership, Huebner & Henneberg-Architects. Offices will be at 254 Hurd Street, Evanston, Ill.

Donald E. Anderson, Kenneth C Naslund and Jack R. Janney have organized The Engineers Collabora tive, a consulting service, at 116 South Michigan Ave., Chicago. Mr. Janney a former employee of the Portland Cement Association, has been an inde pendent consultant for the last three years. The other two men left re sponsible posts with Skidmore Owings and Merrill to become princi pals in the new organization.



LOXIT FLOOR LAYING SYSTEM

THE HEART OF THE LOXIT FLOOR LAYING SYSTEM

The Loxit Floor Laying System, designed to lay ordinary tongue and groove strip flooring mechanically over concrete, provides economies in many ways. In the first place, Loxit-laid floors cost no more—and usually less—than conventional type nailed floors. Experience has shown that a Loxit-laid floor can cost from 10% to 15% less than the same kind of a floor laid with wood sleepers over a wood sub-floor. What's more, a Loxit-laid floor will continue to pay dividends year after year after year, remaining permanently beautiful and requiring only reasonable care for its maintenance. Installations all over the United States, many more than twenty years old, are proving the advantages of the Loxit System.

EVERYTHING LOCKS TOGETHER!

BEAUTIFUL . . . Loxit-laid floors remain permanently beautiful while retaining the proper resiliency for a good playing or working floor.

ECONOMICAL . . . With simple care, Loxit-laid floors give years of trouble-free service.

PERMANENT . . . A Loxit-laid wood floor "stays put" permanently. Everything locks together—and stays that way for long-range economies.

WRITE TODAY for a copy of the fully-detailed catalog on the Loxit Floor Laying System, and a sample built-up model

LOXIT SYSTEMS, INC.

1217 WEST WASHINGTON BLVD., CHICAGO 7, ILLINOIS

NEW PRODUCT NEWS **Materialite**

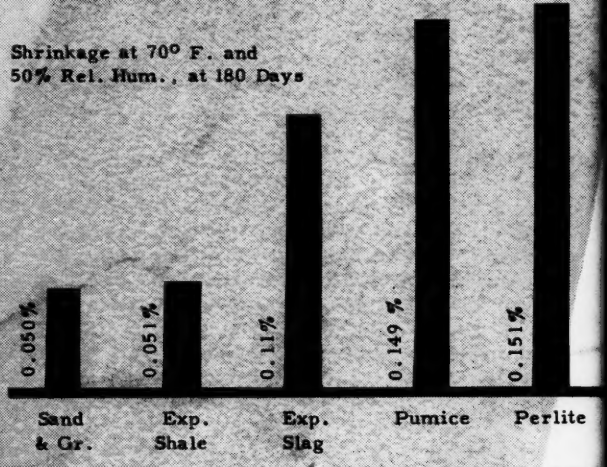
Materialite Expanded Shale Lightweight Aggregate

DECREASES CONCRETE SHRINKAGE OVER 50%....

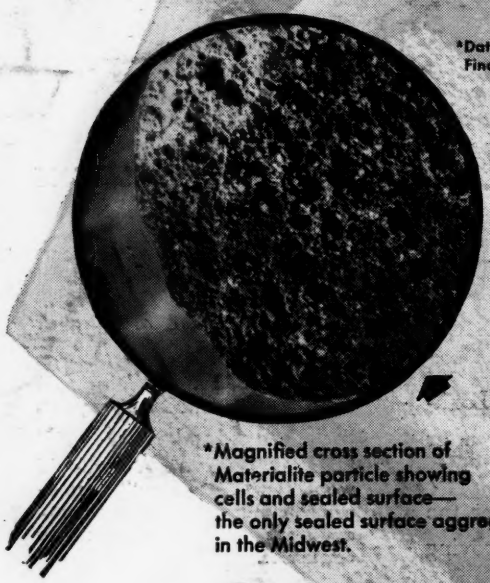
It's the aggregate that counts

U.S. Bureau of Reclamation tests show average shrinkage percentage for concrete using various lightweight aggregates*

One significant reason for relative freedom from cracking of Materialite masonry walls is graphically shown.



*Data from "Lightweight Aggregate Concretes," published by U.S. Housing and Home Finance Agency, Washington, D.C.—Excerpted from "Concrete Facts," Vol. 5, No. 1



*Magnified cross section of Materialite particle showing cells and sealed surface—the only sealed surface aggregate in the Midwest.

The sealed surface of Materialite makes it superior to other expanded shale aggregates. Because of its non-porous skin, absorption of moisture is held to an absolute minimum—thereby reducing the chances for shrinkage.

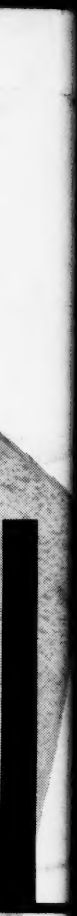
Materialite is a stable aggregate—eliminating the possibility of staining or popping.

Call or write for further information

Specify Materialite Block for Minimum Shrinkage

Materialite®
LIGHTWEIGHT CONCRETE AGGREGATE

ANOTHER PRODUCT OF
MATERIAL SERVICE CORPORATION
300 West Washington Street • Chicago 6, Illinois
Phone Franklin 2-3600, Extension 294



erlite

and Hom
5, No. 1

es it
ates.
on of
um—
age.

ating

tion

ATIO
Illinoi
294